Application No.: 10/570,159

Art Unit 1654

Reply to Restriction Requirement

Docket No.: 0152-0725PUS1

4. (Original) The TGF-β gene expression inhibitor according to claim 3, wherein said target region is a double helix region which comprises a part or all of the following base sequence from -544 to -538 (SEQ ID NO: 3) in the hTGF-β1 promoter, and a complementary strand thereof,

TTCTTAC.

5. (Currently Amended) The TGF-β gene expression inhibitor according to claim 1, wherein said pyrrole-imidazole polyamide is represented by the following formula:
[Formula 1]

wherein the terminal carboxyl group of said pyrrole-imidazole polyamide optionally forms an amide, wherein the smide is optionally bonded to N. N-dimethylaminopropylamine, and

said pyrrole-imidazole polyamide is optionally conjugated to fluorescein-isothiocyanate.

 (Original) The TGF-β gene expression inhibitor according to claim 5, wherein the terminal carboxyl group of said pyrrole-imidazole polyamide forms an amide.

3 of 7

GMM/ETP/las

Author Search

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FILE COVERS 1907 - 6 Jul 2009 VOL 151 ISS 2
FILE LAST UPDATED: 5 Jul 2009 (20090705/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

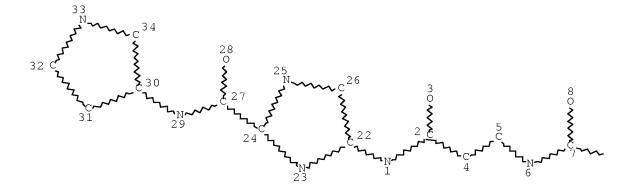
CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

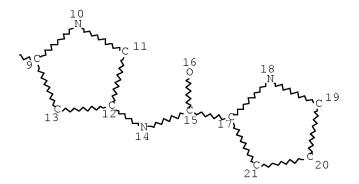
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=> D STAT QUE L17 L7 STR



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GRAPH ATTRIBUTES:

NUMBER OF NODES IS 34

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FILE LAST UPDATED: 2 JUL 2009 <20090702/UP>
MOST RECENT UPDATE: 200941 <200941/DW>
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>>> IPC, ECLA and US National Classifications have been updated
with reclassifications to March 15th, 2009.
F-Term and FI-Term original classifications are current and
reclassification will commence in June.
No update date (UP) has been created for the reclassified
documents, but they can be identified by
specific update codes (see HELP CLA for details)<<</pre>

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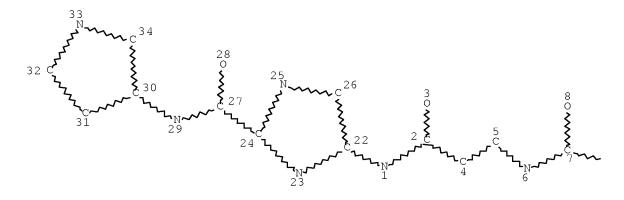
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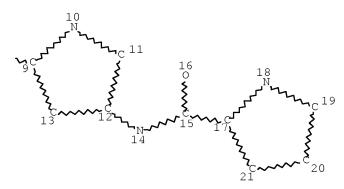
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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

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PROCESSING COMPLETED FOR L17 PROCESSING COMPLETED FOR L21

L26 3 DUP REM L17 L21 (1 DUPLICATE REMOVED)

ANSWER '1' FROM FILE HCAPLUS ANSWERS '2-3' FROM FILE WPIX

=> D IBIB ABS ED HITSTR 1; D IBIB AB HITSTR 2-3

L26 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:232612 HCAPLUS Full-text

DOCUMENT NUMBER: 142:292558

TITLE: Development of human transforming growth factor- β 1 gene expression suppressor agents

INVENTOR(S): Fukuda, Noboru; Kishioka, Hirofumi

; Sugiyama, Hiroshi Nihon University, Japan PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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WO	2005	0232	 48		A1	_	 2005	0317		WO 2004-JP12854						20040903 <			
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CN 1845733 A				20061011			CN 2004-80025429					20040903 <							

US 20080103187 A1 20080501 US 2006-570159 20060301 <-PRIORITY APPLN. INFO.:

JP 2003-312365 A 20030904 <-WO 2004-JP12854 W 20040903 <--

A TGF- β (transforming growth factor β 1) gene targeting expression inhibitor AΒ containing a pyrrole-imidazole polyamide having Py (N-methylpyrrole) unit, Im (N-methylimidazole) unit and γ -aminobutyrate unit which can be fitted into an U-shaped conformation at the γ -aminobutyrate unit in the minor groove in a double helix target region containing a complementary chain corresponding to the sequence at the -557 to -536 in DNA sequence of human $TGF-\beta 1$ promoter. In the double helix target region, either as a whole (TAAAGGAGAGCAATTCTTACAG) or parts (GCAATTCTTACA or TTCTTAC) of wherein a Py/Im pair corresponds to a C-G base pair, an Im/Py pair corresponds to a G-C base pair, and Py/Py pairs correspond resp. to an A-T base pair and a T-A base pair. The pyrroleimidazole polyamide suppressor contains β -alanine unit and its carboxy group forms amide (with N, N-dimethylaminopropylamine) at its polyimide terminal region. The FITC-conjugate form of the pyrrole-imidazole polyamide has been also claimed. The dsDNA-binding activity, in vitro transcription suppression activity using HeLa cell extract, condensation into cell nucleus and inhibitions of the productions TGF-eta1 mRNA and protein product in human vascular smooth muscle cells of the synthetic polyamide were demonstrated. The potential use of the synthetic polyamide as a therapeutics for the TGF- β 1associated cardiovascular diseases were emphasized.

ED Entered STN: 17 Mar 2005

IT 847860-70-2

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(development of human transforming growth factor- $\!\beta 1$ gene expression suppressor agents)

RN 847860-70-2 HCAPLUS

CN β -Alanine, 4-(acetylamino)-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 2-A

AcNH

PAGE 3-A

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 2 OF 3 WPIX COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 2007-343923 [32] WPIX

DOC. NO. CPI: C2007-125369 [32]

TITLE: Connective tissue growth factor (CTGF) gene expression

> inhibitor for treating CTGF associated disease, has pyrrole imidazole polyamide having N-methyl pyrrole, N-methyl imidazole and gamma-aminobutryic acid units

DERWENT CLASS: В03

INVENTOR: FUKUDA N; SUGIYAMA H; UENO T

(GENT-N) GENTIER BIOSYSTEMS INC; (UYNI-N) UNIV NIPPON 115 PATENT ASSIGNEE:

COUNTRY COUNT:

PATENT INFO ABBR.:

PATENT NO KIND DATE WEEK LA PG MAIN IPC

WO 2007034784 A1 20070329 (200732)* JA 34[6] JP 2007536491 X 20090326 (200922) JA 24

APPLICATION DETAILS:

PATENT NO KIND APPLICATION DATE _____ WO 2007034784 A1 WO 2006-JP318512 20060919 JP 2007536491 X PCT Application WO 2006-JP318512 20060919 JP 2007536491 X JP 2007-536491 20060919

FILING DETAILS:

PATENT NO KIND PATENT NO JP 2007536491 X Based on WO 2007034784 A

PRIORITY APPLN. INFO: JP 2005-272137 20050920 WO 2007034784 A1 UPAB: 20090407

> NOVELTY - A connective tissue growth factor (CTGF) gene expression inhibitor comprises pyrrole imidazole polyamide containing N-methyl pyrrole unit (Py), N-methyl imidazole unit (Im) and a gamma-aminobutryic acid unit, where the pyrrole imidazole polyamide is folded up at the region of gamma-aminobutryic acid, to enable U-shaped confirmation, in which Py/Im, Im/Py and Py/Py pairs correspond to base pairs of target of CTGF promoter.

DETAILED DESCRIPTION - A connective tissue growth factor (CTGF) gene expression inhibitor comprises pyrrole-imidazole polyamide containing N-methyl pyrrole unit (Py), N-methyl imidazole unit (Im) and a gamma-aminobutryic acid unit, where the pyrrole-imidazole polyamide is folded into an U-shaped conformation at the gamma-aminobutryic acid unit site, in a minor groove of a double strand region (being target region) containing a portion or all of the base sequence (SEQ ID Number 2) corresponding to -195 to -150 of human CTGF promoter and a strand complementary to it, and in the folded region, a Py/Im pair corresponds to C-G base pair, an Im/Py pair corresponds to G-C base pair, and Py/Py pair corresponds to A-T base pair and T-A base pair, of the target region.

ACTIVITY - Antiinflammatory; Respiratory-Gen.; Dermatological; Antidiabetic; Ophthalmological.

MECHANISM OF ACTION - CTGF Inhibitor.

In vitro analysis of expression inhibitory effect of connective tissue growth factor (CTGF) messenger ribonucleic acid by pyrrole imidazole polyamide (e.g. GBP2101), was carried out as follows. The human mesangial cell derived from a kidney was cultivated in a serum free medium for 24 hours. Then, PMA (12-O-tetraadecanoylphorbol-13-acetate) (1x10-6 M) was added to the human mesangial cell culture and the cells were stimulated. Then, GBP2101 was added and cultivation was carried out in serum free medium for 24 hours. After cultivation, messenger ribonucleic acid was isolated by guanidium thiocyanate method, from the cell, subjected to reverse transcription by avian myeloblastoma virus reverse transcriptase, and then amplified by PCR. The PCR product was assayed using primers specific for CTGF gene. The increase in CTGF gene expression amount by PMA stimulation, was found to be suppressed by the addition of GBP2101. The IC50 value of GBP2101 was found to be 1x10-6 M.

USE - The CTGF gene expression inhibitor is useful for inhibiting expression of CTGF gene (claimed), and for treating CTGF associated disease such as fibrous proliferative disease, blood vessel proliferative disease, arteriosclerosis proliferative disease, pulmonary fibrosis, skin fibrosis and diabetic retinopathy.

ADVANTAGE - The CTGF gene expression inhibitor has a structure having high specificity with respect to CTGF gene, as the inhibitor couples to the specific region of the promoter of human CTGF and inhibits expression of the CTGF gene. The inhibitor does not exhibit side effects like chemotherapeutic drug since the CTGF gene expression is specifically suppressed. The inhibitor is highly stable as it is not degraded by RNase.

DESCRIPTION OF DRAWINGS - The figure shows a graph representing the expression inhibitory effect of connective tissue growth factor messenger ribonucleic acid, by GBP2101. (Drawing includes non-English language text)

AN.S DCR-1471302 SDCN RAQ8N7

L26 ANSWER 3 OF 3 WPIX COPYRIGHT 2009 THOMSON REUTERS on STN

ACCESSION NUMBER: 2003-767409 [72] WPIX

DOC. NO. CPI: C2003-210899 [72]

TITLE: New hairpin type polyamide used for treating cancer

contains pyrrole and imidazole units and alkylation site

DERWENT CLASS: B03; B04

INVENTOR: BANDO T; SAITO I; SAITO R; SUGIYAMA H

PATENT ASSIGNEE: (BAND-I) BANDO T; (NISC-N) JAPAN SCI & TECHNOLOGY AGENCY;

(NISC-N) JAPAN SCI & TECHNOLOGY CORP; (KAGA-N) KAGAKU

GIJUTSU SHINKO JIGYODAN; (SAIT-I) SAITO I; (SUGI-I)

SUGIYAMA H

COUNTRY COUNT: 29

PATENT INFO ABBR.:

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ΕP	1491534	A1	20041229	(200502)	ΕN			
US	20050176647	A1	20050811	(200554)	ΕN			
JΡ	3898532	В2	20070328	(200725)	JA	24		
US	7456294	В2	20081125	(200880)	ΕN			

APPLICATION DETAILS:

PATENT NO KIND	APPLICATION DATE
WO 2003076412 A1	WO 2003-JP2423 20030303
JP 2003261541 A	JP 2002-63608 20020308
JP 3898532 B2	JP 2002-63608 20020308
EP 1491534 A1	EP 2003-707192 20030303
EP 1491534 A1 PCT Application	WO 2003-JP2423 20030303
US 20050176647 A1 PCT Application	WO 2003-JP2423 20030303
US 20050176647 A1	US 2004-507004 20040908
US 7456294 B2 PCT Application	WO 2003-JP2423 20030303
US 7456294 B2	US 2004-507004 20040908

FILING DETAILS:

PATENT NO	KIND		PATENT NO	
JP 3898532	B2	Previous Publ	JP 2003261541 A	
EP 1491534	A1	Based on	WO 2003076412 A	
US 7456294	В2	Based on	WO 2003076412 A	

PRIORITY APPLN. INFO: JP 2002-63608 20020308 AB WO 2003076412 A1 UPAB: 20060120

NOVELTY - New hairpin type polyamide (I) contains N-methyl-pyrrole and N-methyl imidazole polyamide terminals and an alkylation site linked through a vinyl linker.

ACTIVITY - Cytostatic.

No biological data is given.

MECHANISM OF ACTION - None given.

USE - Used for suppressing gene expression and treating cancer.

ADVANTAGE - (I) Provides both sequence recognition and DNA alkylation of specific sequences higher than known functional molecules. The imidazole and pyrrole units bind to specific bases so that the hairpin can be designed to bond to specific sequences.

AN.S DCR-792143 SDCN RABZQW

AN.S DCR-792145 SDCN RABZQY

Structure Search

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FILE COVERS 1907 - 6 Jul 2009 VOL 151 ISS 2
FILE LAST UPDATED: 5 Jul 2009 (20090705/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

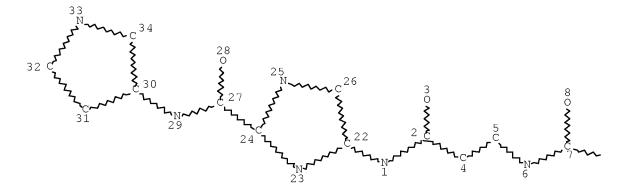
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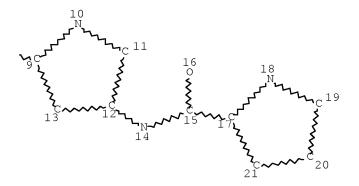
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GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L10 335 SEA FILE=REGISTRY SSS FUL L7

L12 22 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L10

L13 13 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L12 AND (PRY<=2004 OR

 $AY \le 2004 \text{ OR PD} \le 2004 \text{ OR PY} \le 2004)$

=> S L13 NOT L17

L27 12 L13 NOT L17

=> FILE WPIX

FILE 'WPIX' ENTERED AT 14:55:00 ON 06 JUL 2009 COPYRIGHT (C) 2009 THOMSON REUTERS

FILE LAST UPDATED: 2 JUL 2009 <20090702/UP>
MOST RECENT UPDATE: 200941 <200941/DW>

DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> Now containing more than 1.4 million chemical structures in DCR <<<

>>> IPC, ECLA and US National Classifications have been updated with reclassifications to March 15th, 2009.

F-Term and FI-Term original classifications are current and reclassification will commence in June.

No update date (UP) has been created for the reclassified documents, but they can be identified by

specific update codes (see HELP CLA for details) <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:

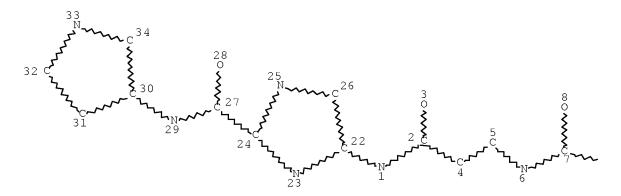
http://www.stn-international.com/stn_guide.html

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://scientific.thomsonreuters.com/support/patents/coverage/latestupdates/

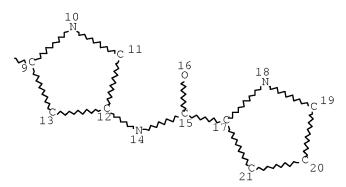
>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<

'BI, ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> D STAT QUE L20 L7 STR







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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L19 6 SEA FILE=WPIX SSS FUL L7

L20 4 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L19/DCR

=> S L20 NOT L21

L28 1 L20 NOT L21

=> DUP REM L27 L28 L25

FILE 'HCAPLUS' ENTERED AT 14:55:43 ON 06 JUL 2009

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'WPIX' ENTERED AT 14:55:43 ON 06 JUL 2009 COPYRIGHT (C) 2009 THOMSON REUTERS

COLINIONI (C) LOUS INCIDENT INCIDENT

FILE 'MARPAT' ENTERED AT 14:55:43 ON 06 JUL 2009

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2009 American Chemical Society (ACS)

PROCESSING COMPLETED FOR L27 PROCESSING COMPLETED FOR L28

PROCESSING COMPLETED FOR L25

L29 16 DUP REM L27 L28 L25 (1 DUPLICATE REMOVED)

ANSWERS '1-12' FROM FILE HCAPLUS

ANSWER '13' FROM FILE WPIX

ANSWERS '14-16' FROM FILE MARPAT

=> D IBIB ED ABS HITSTR 1-12; D IBIB AB HITSTR 13; D IBIB AB HITSTR 14-16

L29 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1262611 HCAPLUS Full-text

DOCUMENT NUMBER: 144:17149

TITLE: Methods of treating cancer by inhibiting histone gene

expression

INVENTOR(S): Dervan, Peter B.; Dickinson, Liliane A.; Arora,

Paramjit; Gottesfeld, Joel M.; Burnett, Ryan

PATENT ASSIGNEE(S): California Institute of Technology, USA

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.			KIN	D	DATE			APPLICATION NO.					DATE				
WO 200 WO 200				A2 A3		 2005 2006			WO 2005-US14631						20050427 <			
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EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20060019972 A1 20060126 US 2005-116959 20050427 <-PRIORITY APPLN. INFO.:

US 2004-566017P P 20040427 <-US 2004-611687P P 20040921 <--

ED Entered STN: 02 Dec 2005

AB Methods are provided for decreasing the rate or inhibiting neoplastic cell proliferation by reducing or inhibiting histone H4 gene expression or histone H4 activity. Also provided are methods of treating a patient with a neoplastic disease, and compns. useful for treating a cancer patient, including, for example, a composition containing small interfering RNA mols. that reduce or inhibit histone H4 expression in a cell or a composition containing a pyrrole-imidazole polyamide operatively linked to a chemotherapeutic mol.

IT 844864-17-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(treating cancer by inhibiting histone gene expression)

RN 844864-17-1 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[(1R)-3-[[4-[4-[bis(2-chloroethy1)amino]pheny1]-1-oxobuty1]amino]-1-[[[5-[[[5-[[[3-[[3-[[3-([3-(dimethylamino)propy1]amino]-3-oxopropy1]amino]carbony1]-1-methy1-1H-pyrrol-3-y1]amino]carbony1]-1-methy1-1H-imidazol-4-y1]amino]-3-oxopropy1]amino]carbony1]-1-methy1-1H-pyrrol-3-y1]amino]carbony1]-1-methy1-1H-pyrrol-3-y1]-1-methy1-4-[[3-[[[1-methy1-4-[((1-methy1-1H-imidazol-2-y1)carbony1]amino]-1H-pyrrol-2-y1]carbony1]amino]-1-oxopropy1]amino]- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

$$Me_2N$$
 (CH₂) 3 NH Me NH NH

PAGE 1-C

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & \\ & & & \\ & & \\ & & & \\ & &$$

PAGE 2-A

PAGE 2-B

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:1010384 HCAPLUS Full-text

DOCUMENT NUMBER: 142:232325

TITLE: Arresting cancer proliferation by small-molecule gene

regulation

AUTHOR(S): Dickinson, Liliane A.; Burnett, Ryan; Melander,

Christian; Edelson, Benjamin S.; Arora, Paramjit S.;

Dervan, Peter B.; Gottesfeld, Joel M.

CORPORATE SOURCE: Department of Molecular Biology, The Scripps Research

Institute, La Jolla, CA, 92037, USA

SOURCE: Chemistry & Biology (2004), 11(11),

1583-1594

CODEN: CBOLE2; ISSN: 1074-5521

PUBLISHER: Cell Press
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 24 Nov 2004

As mall library of pyrrole-imidazole polyamide-DNA alkylator (chlorambucil) conjugates was screened for effects on morphol. and growth characteristics of a human colon carcinoma cell line, and a compound was identified that causes cells to arrest in the G2/M stage of the cell cycle. Microarray anal. indicates that the histone H4c gene is significantly downregulated by this polyamide. RT-PCR and Western blotting expts. confirm this result, and siRNA to H4c mRNA yields the same cellular response. Strikingly, reduction of H4 protein by >50% does not lead to widespread changes in global gene expression. Sequence-specific alkylation within the coding region of the H4c gene in cell culture was confirmed by LM-PCR. The compound is active in a wide range of cancer cell lines, and treated cells do not form tumors in nude mice. The compound is also active in vivo, blocking tumor growth in mice, without obvious animal toxicity.

IT 844864-17-1

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (arresting cancer proliferation by small-mol. gene regulation)

RN 844864-17-1 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[(1R)-3-[[4-[4-[bis(2-chloroethyl)amino]phenyl]-1-oxobutyl]amino]-1-[[5-[[[5-[[[3-[[3-[[3-([3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-C

PAGE 2-A

PAGE 2-B

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:120017 HCAPLUS $\underline{\text{Full-text}}$

DOCUMENT NUMBER: 141:261037

TITLE: A Liquid-Phase Synthesis of DNA-Binding Polyamides

Using Oligocarboxamide Blocks

AUTHOR(S): Sinyakov, A. N.; Feshchenko, M. V.; Ryabinin, V. A.

CORPORATE SOURCE: Vector State Research Center of Virology and Biotechnology, Institute of Molecular Biology,

Novosibirsk oblast, 630559, Russia

SOURCE: Russian Journal of Bioorganic Chemistry (Translation

of Bioorganicheskaya Khimiya) (2004), 30(1),

98-99

CODEN: RJBCET; ISSN: 1068-1620

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:261037

ED Entered STN: 13 Feb 2004

AB A method was developed for the synthesis of sequence-specific polyamides on the basis of 4-amino-1-methylpyrrole-2-carboxylic acid, 4-amino-1-

methylimidazole-2-carboxylic acid, β -alanine, and γ -aminobutyric acid. Dimeric and trimeric oligocarboxamides were used as building blocks. Our synthetic scheme was applied to the synthesis of DNA minor groove binders containing up to twelve carboxamide units.

TT 754226-96-5P 754226-97-6P 754226-98-7P

754227-05-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(liquid-phase synthesis of DNA-binding polyamides using oligocarboxamide blocks)

RN 754226-96-5 HCAPLUS

CN 1H-Pyrrole-2-carboxylic acid, 4-[[[4-[[3-[[[4-[[4-[(4-amino-1-oxobutyl)amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-, ethyl ester (CA INDEX NAME)

PAGE 1-B

- (CH₂) 3-NH₂

RN 754226-97-6 HCAPLUS

CN 1H-Pyrrole-2-carboxylic acid, 4-[[4-[[4-[[4-[[4-[[4-[[4-[[4-[[4-[(3-amino-1-oxopropyl)amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-

oxopropyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-,
ethyl ester (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

RN 754226-98-7 HCAPLUS

yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl- (CAINDEX NAME)

PAGE 1-C

754227-05-9 HCAPLUS

RN

PAGE 3-A

PAGE 4-A

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IT 754227-02-6P 754227-06-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (liquid-phase synthesis of DNA-binding polyamides using oligocarboxamide blocks)

RN 754227-02-6 HCAPLUS

PAGE 1-C

RN 754227-06-0 HCAPLUS

CN 1H-Imidazole-2-carboxamide, 4-[[4-[[3-[[4-[[4-[(4-amino-1-oxobutyl)amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-N-[4-[[5-[[5-[[3-[[5-[[5-[[3-(dimethylamino)propyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]-1-methyl- (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

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REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:377027 HCAPLUS Full-text

DOCUMENT NUMBER: 138:396243

TITLE: Polyamide modulators of COX2 transcription

INVENTOR(S): Phillion, Dennis P.; Crowley, Kathleen S.; Bashkin,

James K.; Schweitzer, Barbara A.; Burnett, Barry L.;

Woodard, Scott S.

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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                                             APPLICATION NO. DATE
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A2 20040804 EP 2002-802875
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A 20040910 MX 2004-4366 20040507 <--
US 2001-344859P P 20011107 <--
US 2002-419405P P 20021018 <--
WO 2002-US35718 W 20021107 <--
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                                                                     20021107 <--
     MX 2004004366
PRIORITY APPLN. INFO.:
     Entered STN: 16 May 2003
     Processes and compns. are provided for regulating COX2 gene expression in a
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ED

AΒ cell. The process includes selecting a polyamide composition comprising N-Me pyrrole (Py) and N-Me imidazole (Im) to provide specific binding to DNA at a COX2 gene target site in a cell. The polyamide is then combined with the cell containing the COX2 gene, wherein the polyamide binds to the COX2 gene promoter target site and regulates transcription of the COX2 gene.

524713-26-6 ΙT

> RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polyamide modulators of COX2 transcription)

524713-26-6 HCAPLUS RN

1H-Imidazole-2-carboxamide, N-[4-[4-[[4-[[4-[[4-[[3-[[2-[[5-[[5-[[3-[[3-CN (dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1Hpyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1methyl-1H-imidazol-4-yl]amino]-1-oxopropyl]amino]-1-methyl-1H-pyrrol-2yl]carbonyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-1Hpyrrol-2-yl]-4-oxobutyl]-1-methyl-4-[[[1-methyl-4-[[[1-methyl-4-[[3-[[[1-methyl-4-[3-[[1-methyl-4-[1]]]]]]]]]]]]methyl-4-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-imidazol-2-yl)carbonyl]amino[[Imidazol-2-yl]amino]-1H-imidazol-2-yl]amino[[Imidazol-2-yl]amipyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1oxopropyl]amino]-1H-imidazol-2-yl]carbonyl]amino]-1H-pyrrol-2yl]carbonyl]amino]- (CA INDEX NAME)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:964348 HCAPLUS Full-text

DOCUMENT NUMBER: 138:39181

TITLE: Preparation of poly-pyrrole substituted benzothiophene

compounds having antiinfective activity

INVENTOR(S): Burli, Roland W.; Baird, Eldon E.; Taylor, Matthew J.;

Kaizerman, Jacob A.; Hu, Wenhao

PATENT ASSIGNEE(S): Genesoft, Inc., USA SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

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US 2001-342309P P 20011221 <-US 2002-165764 B1 20020606 <-US 2002-165856 A1 20020606 <-WO 2002-US17952 W 20020606 <-US 2004-4615 A1 20041202 <--

OTHER SOURCE(S): MARPAT 138:39181

ED Entered STN: 20 Dec 2002

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [R5 = H, F, Cl, Br, I, CN, OH, NH2, etc.; n = 1-25; Y = alkylene, (hetero)aromatic; Z = O, N; m = 1 if Z = O, m = 2 if Z = N; R2 = H, alkyl, heteroalkyl] are prepared For instance, II (prior art) was coupled to 3-chlorobenzothiophene-2-carboxylic acid (DMF, HBTU, i-Pr2NEt, 30 min, 37°) to give III. I are DNA binding compds. exhibiting antibacterial activity. III has MIC \leq 4 μ g/mL against B. cereus, S. aureus, S. epidermidis, E. faecium, and S. pneumoniae.

IT 478399-86-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of poly-pyrrole substituted benzothiophene compds. having antiinfective and DNA binding activity)

RN 478399-86-9 HCAPLUS

Absolute stereochemistry.

PAGE 1-A

PAGE 1-C

$$^{\text{H}}$$
 (CH₂) $^{\text{NMe}2}$

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2000:191196 HCAPLUS Full-text

DOCUMENT NUMBER: 132:232754

TITLE: Inhibition of oncogene transcription by synthetic

polyamides

INVENTOR(S):
Dervan, Peter B.

PATENT ASSIGNEE(S): California Institute of Technology, USA

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE AP	PLICATION NO.	DATE
WO 2000015773 WO 2000015773	A2 A3	20000323 WO 20000817	1999-US20489	19990910 <
W: AE, AL, CZ, DE, IN, IS,	AM, AT, AU DK, DM, EE JP, KE, KG	, AZ, BA, BB, B , ES, FI, GB, G , KP, KR, KZ, L	G, BR, BY, CA, CH, D, GE, GH, GM, HR, C, LK, LR, LS, LT, T, RO, RU, SD, SE,	HU, ID, IL, LU, LV, MD,

SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2342278 20000323 CA 1999-2342278 19990910 <--Α1 AU 9959108 20000403 AU 1999-59108 19990910 <--Α EP 1112267 Α2 20010704 EP 1999-946779 19990910 <--R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO JP 2000-570300 19990910 <--JP 2003505521 Τ 20030212 PRIORITY APPLN. INFO.: US 1998-99854P Ρ 19980911 <--WO 1999-US20489 W 19990910 <--

ED Entered STN: 24 Mar 2000

Polyamides capable of inhibiting the transcription of oncogenes are provided. Preferred polyamides comprising at least 3 complementary pairs of aromatic carboxamide residues bind in the minor groove of double-stranded DNA. More specifically, derivs. of N-methylpyrrole, N-methylimidazole, and/or 3-hydroxy-N-methylpyrrole, and strategically positioned aliphatic amino acid residues (glycine, β -alanine, γ -aminobutyric acid, R-2,4-diaminobutyric acid, 5-aminovaleric acid) form structures with N,N-dimethylaminopropyl termini. With regard to each polyamide, the complementary pairing of some or all of the polyamide's aromatic carboxamide residues dets. the target nucleotide sequence of an identified dsDNA target in the promoter region of an oncogene. Specific polyamides are designed to inhibit the ESX and AP-2 sites in the promoter of the HER-2/neu gene.

IT 261363-95-5 261364-10-7 261364-12-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

 $\hbox{(inhibition of oncogene transcription by synthetic polyamides)}\\$

RN 261363-95-5 HCAPLUS

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

RN 261364-10-7 HCAPLUS

CN 1H-Imidazole-2-carboxamide, 4-[[(2R)-2-amino-4-[[[1-methyl-4-[[[1-methyl-4-[[3-[[1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-N-[5-[[[3-[[2-[[[5-[[3-[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

PAGE 1-C

PAGE 1-D

RN 261364-12-9 HCAPLUS

 $\label{lem:convergence} oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-4- oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[1-methyl-4-[[1-methyl-4-[1-methyl-1-methyl-1-methyl-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-imidazol-2-yl]carbonyl]amino]- (CA INDEX NAME)$

Absolute stereochemistry.

PAGE 1-B

PAGE 1-C

$$-\overset{\text{Me}}{\underset{\text{N}}{\bigvee}} \overset{\text{N}}{\underset{\text{N}}{\bigvee}} \overset{\text{H}}{\underset{\text{N}}{\bigvee}} \overset{\text{H}}{\underset{\text{N}}{\overset{\text{N}}{\underset{\text{N}}{\bigvee}}} \overset{\text{H}}{\underset{\text{N}}} \overset{\text{N}}{\underset{\text{N}}{\overset{\text{N}}}} \overset{\text{N}}{\underset{\text{N}}} \overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{\text{N}}} \overset{\text{N}}{\underset{\text{N}}} \overset{\text{N}}{\underset{\text{N}}} \overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\underset{N}}\overset{\text{N}}{\overset{N}}\overset{\text{N}}\overset{\text{N}}\overset{\text{N}}\overset{\text{N}}\overset{\text{N}}\overset{\text{N}}}\overset{\text{N}}\overset{\text{N}}\overset$$

PAGE 1-D



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2000:578977 HCAPLUS Full-text

DOCUMENT NUMBER: 134:52156

TITLE: Targeting the Ets binding site of the HER2/neu

promoter with pyrrole-imidazole polyamides

AUTHOR(S): Chiang, Shu-Yuan; Burli, Roland W.; Benz, Chris C.;

Gawron, Loretta; Scott, Gary K.; Dervan, Peter B.;

Beerman, Terry A.

CORPORATE SOURCE: Department of Pharmacology and Therapeutics, Roswell

Park Cancer Institute, Buffalo, NY, 14263, USA

SOURCE: Journal of Biological Chemistry (2000),

275(32), 24246-24254

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular

Biology

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 23 Aug 2000

Three DNA binding polyamides (1-3) were synthesized that bind with high affinity (K α = 8.7·109 M-1 to 1.4·1010 M-1) to two 7-base pair sequences overlapping the Ets DNA binding site (EBS; GAGGAA) within the regulatory region of the HER2/neu proximal promoter. As measured by electrophoretic mobility shift assay, polyamides binding to flanking elements upstream (1) or downstream (2 and 3) of the EBS were one to two orders of magnitude more effective than the natural product distamycin at inhibiting formation of complexes between the purified EBS protein, epithelial restricted with serine box (ESX), and the HER2/neu promoter probe. One polyamide, 2, completely blocked Ets-DNA complex formation at 10 nM ligand concentration, whereas formation of activator protein-2-DNA complexes was unaffected at the activator protein-2 binding site immediately upstream of the HER2/neu EBS, even at 100 nM ligand concentration At equilibrium, polyamide 1 was equally effective at inhibiting Ets/DNA binding when added before or after in vitro formation of protein-promoter complexes, demonstrating its utility to disrupt endogenous Ets-mediated HER2/neu preinitiation complexes. Polyamide 2, the most potent inhibitor of Ets-DNA complex formation by electrophoretic mobility shift assay, was also the most effective inhibitor of HER2/neu promoter-driven transcription measured in a cell-free system using nuclear extract from an ESX- and HER2/neu-overexpressing human breast cancer cell line, SKBR-3.

IT 313945-83-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(targeting Ets binding site of HER2/neu promoter with pyrrole-imidazole polyamides)

RN 313945-83-4 HCAPLUS

(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1Hpyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl1H-pyrrol-3-yl]amino]-4-oxobutyl]-1-methyl-4-[[1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2yl]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino](9CI) (CA INDEX NAME)

$$-NH \longrightarrow \bigcup_{N} \bigcup_{Me} NH - CH_2 - CH_2 - \bigcup_{Me} NH \longrightarrow \bigcup_{Me} NH - \bigcup_{Me} NH \longrightarrow \bigcup_$$

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2000:417743 HCAPLUS Full-text

DOCUMENT NUMBER: 133:248492

TITLE: Recognition of the Minor Groove of DNA by Hairpin

Polyamides Containing α -Substituted- β -Amino

Acids

AUTHOR(S): Floreancig, Paul E.; Swalley, Susanne E.; Trauger,

John W.; Dervan, Peter B.

CORPORATE SOURCE: Division of Chemistry and Chemical Engineering,

California Institute of Technology, Pasadena, CA,

91125, USA

SOURCE: Journal of the American Chemical Society (2000

), 122(27), 6342-6350

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:248492

ED Entered STN: 23 Jun 2000

AΒ Incorporation of the flexible amino acid β -alanine (β) into hairpin polyamides composed of N-methylpyrrole (Py) and N-methylimidazole (Im) amino acids is required for binding to DNA sequences longer than seven base pairs with high affinity and sequence selectivity. Pairing the α -substituted- β -amino acids (S)-isoserine (SIs), (R)-isoserine (RIs), β -aminoalanine (Aa), and α -fluoro- β alanine (Fb) side-by-side with β in hairpin polyamides alters DNA binding affinity and selectivity relative to the parent polyamide containing a β/β pairing. Quant. DNase I footprinting titration studies on a restriction fragment containing the sequences 5'-TGCNGTA-3' (N = A, T, G, and C) show that the polyamide $ImPySIsImPy-y-PyPy\betaImPy-\beta-Dp$ (SIs/ β pairing) binds to N = T (Ka = 4.5+109 M-1) in preference to N = A (Ka = 6.2+108 M-1). This result stands in contrast to the essentially degenerate binding of the parent $ImPy\beta ImPy-\gamma-$ PyPy β ImPy- β -Dp (β/β pairing) to N = T and N = A, and to the slight preference of $ImPy\beta ImPy-\gamma-PyPySIsImPy-\beta-Dp$ (β/SIs pairing) to N=A over N=T. Addnl., this study reveals that incorporation of RIs, Aa, and Fb into polyamides significantly reduces binding affinity. Therefore, DNA binding in the minor groove is sensitive to the stereochem., steric bulk, and electronics of the substituent at the α -position of β -amino acids in hairpin polyamides containing β/β pairs.

IT 294858-26-7P 294858-28-9P 294858-30-3P 294858-32-5P 294858-33-6P 294858-34-7P

294858-62-12

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(recognition of the minor groove of DNA by hairpin polyamides containing

 α -substituted- β -amino acids)

RN 294858-26-7 HCAPLUS

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}_-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}_-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}_-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}$$

PAGE 1-C

__ (CH₂)3_NMe₂

PAGE 2-A

RN 294858-28-9 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[(2S)-3-[[2-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-2-hydroxy-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-C

RN 294858-30-3 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[4-[5-[[5-[[5-[[3-[[5-[[3-[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[(2S)-2-hydroxy-3-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-C

RN 294858-32-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, 4-[[(2S)-2-amino-3-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1- oxopropyl]amino]-N-[5-[[[4-[[5-[[[5-[[[3-[[3-[[3-([3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3- oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-C

RN 294858-33-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[4-[5-[[5-[[5-[[3-[[5-[[3-[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[(2R)-2-hydroxy-3-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Page 46 of 495

PAGE 1-C

RN 294858-34-7 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[3-[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[(2S)-2-fluoro-3-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

PAGE 1-C

$$-\overset{H}{\underset{N}{\bigvee}} \overset{F}{\underset{N}{\bigvee}} \overset{H}{\underset{Ne}{\bigvee}}$$

RN 294858-62-1 HCAPLUS

CN Ferrate(1-), [1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-(2S)-2-hydroxy- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[15-(carboxy- κ 0)-11,14-bis[(carboxy- κ 0)methyl]-4-methyl-9-oxo-4,8,11,14-tetraazapentadec-1-yl]- β -alaninamidato(3-)]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

PAGE 3-B

PAGE 4-B

IT 294858-43-8 294858-45-0

RL: RCT (Reactant); RACT (Reactant or reagent) (recognition of the minor groove of DNA by hairpin polyamides containing $\alpha\textsc{-substituted-}\beta\textsc{-amino}$ acids)

RN 294858-43-8 HCAPLUS

CN β -Alanine, 4-amino-2,3,4,5-tetradehydro-1-methylprolyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-, [4-[2-(methylamino)-2-oxoethyl]phenyl]methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{Me} \\ \text{NH} \\ \text{C-NH-CH}_2\text{-CH}_2 \\ \text{NH} \\ \text{Me} \\ \text{NH} \\ \text{NH} \\ \text{Me} \\ \text{NH} \\$$

RN 294858-45-0 HCAPLUS

CN β -Alanine, 4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-, [4-[2-(methylamino)-2-oxoethyl]phenyl]methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:721676 HCAPLUS Full-text

DOCUMENT NUMBER: 129:343723

ORIGINAL REFERENCE NO.: 129:70017a,70020a

TITLE: Preparation of DNA-binding pyrrole and imidazole

polyamide derivatives

INVENTOR(S):
Dervan, Peter B.

PATENT ASSIGNEE(S): California Institute of Technology, USA

SOURCE: PCT Int. Appl., 243 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

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WO 9849142				A1 19981105				WO 1	 998-	 US69	19980408 <									
		W:	AL,	AM,	AT,	AU,	AZ,	BA,	BB,						CN,	CU,	CZ,	DE,		
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			LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NΖ,	PL,		
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			VN,	YU,	ZW															
		RW:						SZ,									•			
			GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	BF,	ΒJ,	CF,	CG,	CI,	CM,	GA,		
				$ ext{ML}$,	MR,		SN,	TD,												
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US 6555692 PRIORITY APPLN. INFO.:								2005	0423	US 2001-921514 US 1996-607078						A2 19960226 <				
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											US 1							008 <		
ED GI	Ent	cered	STN	: 1	3 No	v 19	98				_	-	-			_				

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- Novel small mol. polyamides I [each R1, R5, R7, R8, R10 = independently H, C1, AB NO, Ac, PhCH2, C1-6 alkyl, C1-6 alkylamine, C1-6 alkyldiamine, C1-6 alkylcarboxylate, C1-6 alkenyl, C1-6 alkynyl; R2 = H, NH2, SH, C1, Br, F, Ac, CHO; each R3, R6, R9, R11 = independently H, NH2, OH, SH, Br, C1, F, OMe, CH2OH, CH2SH, CH2NH2; R4 = NH(CH2)0-6NR12R13, NH(CH2)0-6CONH(CH2)0-6NR12R13, NHR12, NH(CH2)0-6CONHR12; R12, R13 = independently H, Cl, NH, Ac, CH2Ph, C1-6 alkyl, C1-6 alkylamine, C1-6 alkyldiamine, C1-6 alkylcarboxylate, C1-6 alkenyl, C1-6-L; L = biotin, oligodeoxynucleotide, N-ethylnitrosourea, fluorescein, bromoacetamide, iodoacetamide, DL- α -lipoic acid, acridine, Ethyl Red, 4-(psoralen-8-yloxy) butyrate, tartaric acid, $(+)-\alpha$ -tocopheral, C1-6 alkynyl; each X-X4 = independently N, CH, C(OH), CMe, CNH2, CC1, CF; each a, c, e, h = independently 0-10; each b, d, f, g, i, m, n, p, q = independently0-5] that specifically bind with subnanomolar affinity to any predetd. sequence in the human genome with potential use in mol. biol. and human medicine are described. Further, the designed compds. which target the minor groove of B-form double helical DNA offer a general approach for the control of gene-expression. Simple rules are disclosed which provide for rational control of the DNA-binding sequence specificity of synthetic polyamides containing N-methylpyrrole and N-methylimidazole amino acids. A series of mol. templates for polyamide design are disclosed which provide for small mols. which recognize predetd. DNA sequences with affinities and specificities comparable to sequence specific DNA-binding proteins such as transcription factors. Thus, designed polyamide II, prepared by solid-phase methods, showed recognition for oligonucleotide 5'-AACCAAGTCTTGGTA-3' with Ka = 4 + 108 M-1, and specificities of 11 and 19 for the match site vs. a center mismatch and an edge mismatch, resp.

IT 215438-30-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and sequence specificity of DNA-binding pyrrole and imidazole polyamide derivs.)

RN 215438-30-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

PAGE 1-B

IT 215437-62-0P 215437-65-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and sequence specificity of DNA-binding pyrrole and imidazole polyamide derivs.)

RN 215437-62-0 HCAPLUS

PAGE 1-B

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PAGE 1-C

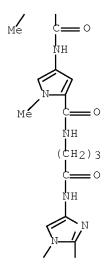
PAGE 2-A

PAGE 3-A

RN 215437-65-3 HCAPLUS

CN Nickel, [glycyl- κ N-glycyl- κ N-L-histidyl- κ N, κ N3- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H- pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- β -alaninamidato(2-)]- (9CI) (CA INDEX NAME)

PAGE 2-A



PAGE 5-A

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:604905 HCAPLUS Full-text

DOCUMENT NUMBER: 129:226610

ORIGINAL REFERENCE NO.: 129:45969a,45972a

TITLE: Design and use of specific polyamide DNA-binding

ligands for modulation of gene expression

INVENTOR(S): Baird, Eldon E.; Dervan, Peter B.

PATENT ASSIGNEE(S): California Institute of Technology, USA

SOURCE: PCT Int. Appl., 260 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PA:	TENT	NO.			KIND DATE			APPLICATION NO.						DATE					
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		KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,		
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US 1996-24374P P 19960801 <--
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WO 1997-US3332 A2 19970220 <--
US 1997-44444P P 19970408 <--
WO 1997-US12722 A 19970721 <--
WO 1998-US1714 W 19980129 <--
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ED Entered STN: 24 Sep 1998

The invention encompasses improved selective polyamides for binding to specific nucleotide sequences of double stranded DNA as well as methods for designing and synthesizing polyamide DNA binding ligands that are selective for an identified specific nucleotide sequence. The 3-hydroxy-N-methylpyrrole/N-methylpyrrole carboxamide pair specifically recognizes the T.A base pair, while the N-methylpyrrole/3-hydroxy-N-methylpyrrole pair recognizes A.T nucleotide pairs. Similarly, an N-methylimidizole/N-methylpyrrole carboxamide pair specifically recognizes the G.C nucleotide pair, and the N-methylpyrrole/N-methylimidizole carboxamide pair recognizes the C.G nucleotide pair.

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212484-15-6 212484-16-7
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); THU (Therapeutic use);
BIOL (Biological study); PROC (Process); USES (Uses)
      (design and use of specific polyamide DNA-binding ligands for
     modulation of gene expression)
191916-00-4 HCAPLUS
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methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-
oxobutyl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]carbonyl]-1-
methyl-1H-imidazol-4-yl]-1-methyl-4-[[(1-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-1H-imidazol-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2-methyl-2
yl)carbonyl]amino]- (CA INDEX NAME)
```

RN

CN

PAGE 1-A

$$\begin{array}{c|c}
Me \\
NH \\
NH
\end{array}$$

$$\begin{array}{c|c}
NH \\
NH
\end{array}$$

PAGE 1-B

$$-\overset{\circ}{\mathbb{U}}_{\mathrm{NH}} = \overset{\circ}{\mathbb{U}}_{\mathrm{NH}} = \overset{\circ}{\mathbb$$

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 193743-37-2 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[2-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

206128-30-5 HCAPLUS

RN

CN 1H-Imidazole-2-carboxamide, N-[5-[[[5-[[[4-[[2-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

RN

206128-31-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[5-[[4-[[2-[[5-[[5-[[5-[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 211860-88-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

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PAGE 1-C

__ (CH2)3_NMe2

PAGE 2-A

RN 212180-64-8 HCAPLUS

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RN 212181-15-2 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[4-[[[4-[[[4-[[[4-[[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

RN 212182-37-1 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 212182-38-2 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[(3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl- (CA INDEX NAME)

CN 1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[(3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

RN 212182-43-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-

RN 212182-45-1 HCAPLUS

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methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-imidazol-2yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 1-C

RN 212182-46-2 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[2-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[[4-[[(3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

RN 212182-49-5 HCAPLUS
CN 1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[4-[[[4-[[[4-[[[4-[[[4-[[[4-[[14-[y]]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-

yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

PAGE 2-B
NH
COO

RN 212182-50-8 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[[4-[[4-[[4-[[3-hydroxy-4-[[[3-hydroxy-4-[[[4-[[(3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

PAGE 1-A

212182-51-9 HCAPLUS

RN

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[[4-[[[3-hydroxy-4-[[4-[[[4-[[[3-hydroxy-4-[[4-[[[4-[[[3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1-m

PAGE 1-A

RN 212182-52-0 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212182-57-5 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carb

 $\label{local-equation} $$ \liminf_{n\to\infty} 2-\text{carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)$

RN 212182-58-6 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 212182-59-7 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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212182-61-1 HCAPLUS

RN CN 1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1Hpyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[[3-hydroxy-4-hymethyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-A

Me
NH
CNH
(CH2)3

NH
Me
NH
Me
NH
NH
NH

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RN

212182-62-2 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[4-[[5-[[5-[[[5-[[[5-[[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]-4-[[[4-[[[4-[[(3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

PAGE 1-C

RN 212182-63-3 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[2-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[4-[[[4-[[[4-[[[4-[[[4-[[[4-[[4-[[3-hydroxy-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl- (CA INDEX NAME)

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RN 212182-65-5 HCAPLUS

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RN 212182-66-6 HCAPLUS

CN 1H-Pyrrole-2-carboxamide, N-[4-[[5-[[5-[[5-[[5-[[5-[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]-3-hydroxy-4-[[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-A

RN 212182-81-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[4-[[[4-[[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-

pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

RN 212446-79-2 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-([3-([3-([id-thylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[4-[[4-[[3-hydroxy-4-[[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

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RN 212446-80-5 HCAPLUS
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CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[4-[[4-[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

PAGE 1-A

RN 212446-81-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[[3-hydroxy-4-[[[4-[[[4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

RN 212446-82-7 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[[3-hydroxy-4-[[4-[[[4-[[[3-hydroxy-1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amin

RN 212446-83-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN

212446-86-1 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-4-[[[4-[[3-hydroxy-4-[[[4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

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RN 212446-87-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{Me}}{\mathsf{C}}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{C}-\mathsf{$$

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__ (CH2)3_NMe2

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RN 212446-88-3 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-4-[[3-[[[3-hydroxy-4-[[4-[[[4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

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RN 212446-89-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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__ (CH2)3_NMe2

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RN 212446-90-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \overset{\text{OH}}{\longrightarrow} \overset{\text{O}}{\longrightarrow} \text{NH-CH}_2 - \text{CH}_2 - \overset{\text{O}}{\longleftarrow} \text{NH-CH}_2 \\ & \text{Me} \end{array}$$

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212446-93-0 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212446-94-1 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[3-[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-CH_2-CH_2-\overset{\circ}{U}-NH$$

PAGE 1-C

__ (CH₂)3_NMe₂

RN 212446-95-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212447-03-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[4-[[4-[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

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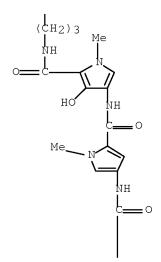
RN 212447-04-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[[3-hydroxy-4-[[4-[[[4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amin

RN 212447-06-8 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-4-[[4-[[4-[[3-hydroxy-1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[1]]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

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RN 212447-07-9 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[4-[[[1-methyl-4-[[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[1]]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

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$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{$$

PAGE 1-C

__ (CH2)3_NMe2

PAGE 2-A

RN 212447-12-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[5-[[[4-[[5-[[[5-[[[5-[[[3-[[3-[[3-([3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 212447-13-7 HCAPLUS

1H-Imidazole-2-carboxamide, N-[5-[[[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[3-[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1-oxopropyl]amino]-(CA INDEX NAME)

PAGE 1-A

RN 212447-14-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

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PAGE 2-A

PAGE 2-B

RN 212447-16-0 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212447-17-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212447-18-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

RN 212447-20-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 212447-21-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\mathrm{NH} \underbrace{\qquad \qquad }_{\mathrm{Me}}^{\mathrm{O}} -\mathrm{NH} - \mathrm{CH}_{2} - \mathrm{CH}_{2} - \underbrace{\mathrm{C}}_{\mathrm{NH}} - \mathrm{NH} - \underbrace{\qquad \qquad }_{\mathrm{N}}^{\mathrm{N}} - \mathrm{NH} - \underbrace{\qquad \qquad }_{\mathrm{Me}}^{\mathrm{N}} - \mathrm{NH} - \underbrace{\qquad \qquad }_{\mathrm{Me}}^{\mathrm{N}} - \mathrm{NH} - \underbrace{\qquad \qquad }_{\mathrm{Me}}^{\mathrm{N}} - \mathrm{NH} - \underbrace{\qquad \qquad }_{\mathrm{N}}^{\mathrm{N}} - \mathrm{NH} - \underbrace{\qquad \qquad }_{\mathrm{N}^{\mathrm{N}} - \mathrm{NH} - \underbrace{\qquad \qquad$$

PAGE 1-C

PAGE 2-A

RN 212447-37-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[2-[[[4-[[5-[[[5-[[[3-[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-1-methyl-4-[[[1-methyl-4-[[3-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1-oxopropyl]amino]-1H-imidazol-2-yl]carbonyl]amino]-(CA INDEX NAME)

PAGE 1-B

CH2-CH2-NH-C-NH-C-(CH2)3-NH-C
Me

Me

Me

RN 212448-31-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

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RN 212448-32-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

— (CH2)3—NMe2

PAGE 2-A

RN 212448-34-5 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN

CN 1H-Imidazole-2-carboxamide, N-[5-[[[2-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[4-[[3-hydroxy-4-[[4-[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-oxopropyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl-(CA INDEX NAME)

RN 212448-80-1 HCAPLUS CN 1H-Imidazole-2-carboxamide, N-[5-[[[2-[[[3-[[3-

(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-4-[[4-[[4-[[4-[[3-[[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-oxopropyl]amino]-1-

methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl-1H-pyrrol-2yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

RN 212448-86-7 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

RN 212449-04-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

— (CH2)3—NMe2

RN 212449-05-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

— (CH2)3—NMe2

PAGE 2-A

RN 212449-07-5 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

— (CH2)3—NMe2

PAGE 2-A

RN 212449-51-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 2-A

RN 212449-52-0 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

NH—
$$CH_2$$
— CH_2 —

PAGE 1-C

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RN 212449-56-4 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212449-73-5 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-

 $\begin{array}{l} {\rm carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-\beta-alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) \\ {\rm INDEX\ NAME}) \end{array}$

RN 212449-74-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[2-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[3-[[[4-[[[3-hydroxy-1-methyl-4-[[4-[[1-methyl-4-[[1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-imidazol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-C

__ (CH2)3_NMe2

PAGE 2−A J...

RN 212449-76-8 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

— (CH2)3—NMe2

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RN 212450-16-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212450-17-4 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212450-23-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212450-85-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-

yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

RN 212450-86-7 HCAPLUS

CN

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{C$$

PAGE 1-C

__ (CH₂)3_NMe₂

PAGE 2-A

RN 212450-87-8 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

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PAGE 1-C

PAGE 2-A

RN 212450-88-9 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{NH}-\mathsf$$

PAGE 1-C

__ (CH2)3_NMe2

RN 212450-90-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-\mathrm{NH} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{NH}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{NH}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{NH}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{HO}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{CH}_{2}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{CH}_{2}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{CH}_{2}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{CH}_{2}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{NH}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}_{\mathrm{NH}}}}_{\mathrm{NH}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{NH}}}_{\mathrm{NH}} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{U}}_{\mathrm{$$

PAGE 1-C

RN 212450-91-4 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{C$$

PAGE 1-C

__ (CH₂)3_NMe₂

PAGE 2-A

RN 212450-96-9 HCAPLUS

PAGE 1-B

PAGE 2-A

212450-97-0 HCAPLUS

RN

 $\label{lem:hydroxy-1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)$

PAGE 1-B

PAGE 1-C

PAGE 2-A

- RN 212451-00-8 HCAPLUS
- CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 212451-45-1 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]-(9CI) (CA INDEX NAME)

$$-\text{NH}-\text{CH}_2-\text{CH}_2 - \overset{\circ}{\text{C}}-\text{NH} - \overset{\circ}{\text{NH}} - \overset{\circ}{\text{NH}}$$

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212451-46-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-\text{NH}-\text{CH}_2-\text{CH}_2-\overset{\circ}{\text{C}}-\text{NH}-\overset{\circ}{\text{NH}}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\overset{\circ}{\text{NH}}-\overset{\circ}{\text{Me}}-\overset{\circ}{\text{NH}}-\overset{\circ}{\text$$

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212451-52-0 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-\text{NH}-\text{CH}_2-\text{CH}_2-\overset{\circ}{\text{C}}-\text{NH}-\overset{\circ}{\text{NH}}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{Me}}-\overset{\circ}{\text{NH}}-\overset{\circ}{\text{Me}}-\overset{\circ}{\text{NH}}-\overset{\circ}{\text$$

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212451-60-0 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

PAGE 1-B

$$-NH \xrightarrow{OH} \stackrel{O}{\stackrel{}{\text{U}}} NH \xrightarrow{N} Me$$

$$C-NH-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212451-61-1 HCAPLUS

PAGE 1-B

$$-CH_{2}$$

PAGE 1-C

__(CH2)3_NMe2

PAGE 2-A

RN 212451-62-2 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

PAGE 1-A

Me
NH
OH
OH
NH

$$\begin{array}{c|c} & & & \\ &$$

PAGE 1-C

PAGE 1-B

$$-$$
C $-$ NH $-$ (CH $_2$) $_3$ $-$ NMe $_2$

Ме **|**

PAGE 2-A

RN 212451-63-3 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[3-[[5-[[[3-[[3-[(3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

PAGE 1-C

__ (CH₂)3_NMe₂

PAGE 2-A

RN 212451-66-6 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 2-A

RN 212451-67-7 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

__(CH₂)3_NMe₂

PAGE 2-A

RN 212451-72-4 HCAPLUS

PAGE 1-B

RN 212451-73-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[3-[[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

Ме **|**

PAGE 1-C

RN 212451-75-7 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212452-08-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]-(9CI) (CA INDEX NAME)

PAGE 1-B

$$-\text{NH}-\text{CH}_2-\text{CH}_2 - \overset{\circ}{\text{C}}-\text{NH} - \overset{\circ}{\text{NH}} - \overset{\circ}{\text{Me}} - \overset{\circ}{\text{NH}} - \overset{\circ}{\text{NH}}$$

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212452-15-8 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]-(9CI) (CA INDEX NAME)

PAGE 1-C

RN 212452-39-6 HCAPLUS

CN

1H-Imidazole-2-carboxamide, N-[3-[[2-[[[5-[[[5-[[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]-1-methyl-4-[[4-[[1-methyl-4-[[1-methyl-4-[[3-[[1-methyl-4-[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-imidazol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]- (CA INDEX NAME)

PAGE 1-C

PAGE 2-A

RN 212452-42-1 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[4-[[4-[[3-hydroxy-4-[[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbon

PAGE 1-A

PAGE 4-A

PAGE 1-A

RN 212452-43-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

 $\begin{array}{c} & & & \\ & &$

RN 212452-44-3 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[[3-hydroxy-4-[[4-[[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

PAGE 1-A

PAGE 2-A

$$\begin{array}{c} CH_2 \\ NH \\ NH \\ NH \\ Me \end{array}$$

$$\begin{array}{c} OH \\ NH \\ NH \\ CH_2 \\ NH$$

RN 212452-45-4 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[[3-hydroxy-4-[[4-[[[4-[[[3-hydroxy-1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}}-\overset{\mathsf{NH}}{\mathsf{CH}}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}}-\overset{$$

PAGE 1-C

__ (CH2)3_NMe2

PAGE 2-A

RN 212452-46-5 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

Me___

RN 212452-49-8 HCAPLUS CN

oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3hydroxy-4-[[[4-[[4-[[[3-hydroxy-4-[[[4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-y1]carbony1]amino]-1-oxopropy1]amino]-1-methy1- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

PAGE 3-A

PAGE 4-A

RN 212452-50-1 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-4-[[3-[[4-[[4-[[4-[[4-[[4-[[3-hydroxy-1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

RN 212452-51-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{$$

PAGE 1-C

__(CH₂)3_NMe₂

PAGE 2-A

RN 212452-52-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 2-A

RN 212452-55-6 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{NH}-\mathsf{NH}-\mathsf{NH}-\mathsf{NH}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{NH}$$

PAGE 1-C

__ (CH₂)3_NMe₂

PAGE 2-A

RN 212452-56-7 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{$$

PAGE 1-C

__ (CH₂)3_NMe₂

RN 212452-57-8 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[4-[[5-[[5-[[[3-[[2-[[[5-[[[3-[[3-((dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]-1-methyl-4-[[[1-methyl-4-[[3-[[1-methyl-4-[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-imidazol-2-yl]carbonyl]amino]-(CA INDEX NAME)

PAGE 1-B

PAGE 1-C

212452-58-9 HCAPLUS

RN

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[2-[[[5-[[[3-[[3-((dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[4-[[1-methyl-4-[[3-[[1-methyl-4-[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-oxopropyl]amino]-1H-imidazol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]- (CA INDEX NAME)

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}}-\overset{\mathsf{NH}}{\mathsf{CH}}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{C}-\mathsf{N$$

PAGE 1-C

__ (CH2)3_NMe2

PAGE 2-A

RN 212452-67-0 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[4-[[4-[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[[1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

PAGE 1-A

PAGE 4-A

RN 212452-68-1 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[[3-hydroxy-1-methyl-4-[[[1-methyl-4-[[[1-methyl-4-[[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

PAGE 1-A

PAGE 2-A

$$\begin{array}{c} CH_2 \\ NH \\ NH \\ NH \\ Me \end{array}$$

$$\begin{array}{c} OH \\ NH \\ NH \\ CH_2 \\ NH$$

RN 212452-70-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-4-[[4-[[4-[[3-hydroxy-1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}}-\overset{\mathsf{NH}}{\mathsf{CH}}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}}-\overset{$$

PAGE 1-C

__ (CH2)3_NMe2

PAGE 2-A

RN 212452-71-6 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{NH}-\mathsf$$

PAGE 1-C

__ (CH₂)3_NMe₂

PAGE 2-A

RN 212452-72-7 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-4-[[[3-hydroxy-1-methyl-4-[[4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[1]-methyl-4-[1]]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}}-\overset{\mathsf{NH}}{\mathsf{CH}}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}}-\overset{$$

PAGE 1-C

__ (CH2)3_NMe2

PAGE 2-A

RN 212452-77-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

Me NH C (CH2) 3 - NH C NH OH NH CH2 CH2

RN 212452-78-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212452-79-4 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

Me
NH
NH
C
(CH2)3-NH
NH
NH
HO
HO

PAGE 1-B

RN 212452-81-8 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212452-82-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$\underbrace{ \begin{array}{c} \text{OH} \\ \text{NH} \end{array} }_{\text{Ne}} \text{CH}_{2} - \text{CH}_{2} - \underbrace{ \begin{array}{c} \text{OH} \\ \text{NH} \end{array} }_{\text{Ne}} \text{NH} \underbrace{ \begin{array}{c} \text{OH} \\ \text{NH} \end{array} }_{\text{Ne}} \text{NH} \underbrace{ \begin{array}{c} \text{OH} \\ \text{NH} \end{array} }_{\text{Ne}} \text{NH} \underbrace{ \begin{array}{c} \text{CH} \\ \text{NH} \end{array} }_{\text{NH}} \text{CH}_{2} \underbrace{ \begin{array}{c} \text{CH} \\ \text$$

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212452-83-0 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

RN 212452-85-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-NH \longrightarrow \bigcup_{N=0}^{\infty} C - NH - CH_2 - CH_2 - \bigcup_{N=0}^{\infty} NH \longrightarrow \bigcup_{N=0}^{\infty} NH$$

PAGE 2-A

RN 212452-86-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-NH \longrightarrow \bigcup_{N=0}^{\infty} NH - CH_2 - CH_2 - \bigcup_{N=0}^{\infty} NH \longrightarrow \bigcup$$

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212453-00-4 HCAPLUS

1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[3-[[4-[[4-[[3-hydroxy-1-methyl-4-[[1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-imidazol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

$$-\text{NH}-\text{CH}_2-\text{CH}_2 - \overset{\circ}{\text{C}}-\text{NH} - \overset{\circ}{\text{NH}} - \overset{\circ}{\text{Me}} - \text{NH} - \overset{\circ}{\text{Me}} - \overset{\circ}{\text{NH}} - \overset{\circ}{\text{Me}} - \overset{\circ}{\text{NH}} - \overset{\circ}{\text{Me}} - \overset{\circ}{\text{NH}} - \overset{\circ}{\text{Me}} - \overset{\circ}{\text{NH}} - \overset{\circ}$$

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212453-01-5 HCAPLUS

CN

PAGE 1-B

$$-\text{NH}-\text{CH}_2-\text{CH}_2-\overset{\circ}{\text{C}}-\text{NH}-\overset{\circ}{\text{NH}}-\overset{\circ}{\text{Me}}-\text{NH}-\overset{\circ}{\text{NH}}-\overset{\circ}{\text$$

PAGE 2-A

RN 212453-02-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[2-[[[4-[[5-[[[5-[[[3-[[3-[[3-[(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-1-methyl-4-[[[1-methyl-4-[[3-[[(1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-oxopropyl]amino]-1H-imidazol-2-yl]carbonyl]amino]-(CA INDEX NAME)

PAGE 1-B

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 212453-71-9 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[4-[5-[[5-[[5-[[5-[[5-[[3-[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-B

PAGE 3-B

RN 212453-72-0 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 212453-73-1 HCAPLUS

PAGE 1-B

PAGE 1-C

PAGE 2-A

RN 212453-74-2 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[4-[5-[[5-[[5-[[5-[[5-[[3-[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-4-[[(3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{C$$

PAGE 1-C

__ (CH₂)3_NMe₂

PAGE 2-A

RN 212453-77-5 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212453-78-6 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-B

НО----

Me_____

PAGE 2-C

CN 1H-Imidazole-2-carboxamide, N-[5-[[4-[5-[[5-[[5-[[5-[[5-[[3-[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

RN 212453-84-4 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[4-[[5-[[5-[[5-[[5-[[5-[[5-[[3-[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-4-[(3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-C

$$\begin{array}{c} \text{PAGE 2-A} \\ \\ \text{Ne} \end{array}$$

RN 212453-86-6 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1-(9CI) (CA INDEX NAME)

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212454-35-8 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 2-A

-NH- (CH2)3-NMe2

RN 212454-36-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

-NH-CH2-CH2-

Me NH C (CH2) 3 - NH C NH NH C CH2 NH Me NH CH2 CH2 CH2 CH2 CH2 CH2

RN 212454-42-7 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-\stackrel{\circ}{\mathbb{L}}_{-NH-CH_2-CH_2} \stackrel{\circ}{\mathbb{L}}_{-NH} \stackrel{\circ}{\mathbb{L}_$$

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212454-48-3 HCAPLUS

1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[3-hydroxy-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-B

RN 212454-49-4 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

__ (CH2)3_NMe2

RN 212454-50-7 HCAPLUS

Ме |

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PAGE 2-A

RN 212454-51-8 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

__ (CH2)3_NMe2

PAGE 2-A

RN 212454-54-1 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212454-55-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\text{CH}_2-\text{C$$

PAGE 1-C

PAGE 2-A

__(CH₂)3_NMe₂

RN 212454-60-9 HCAPLUS

PAGE 1-B

Me NH CH2 CH2 CH2
$$\stackrel{\sim}{\downarrow}$$
 $\stackrel{\sim}{\downarrow}$ $\stackrel{\sim}{\downarrow$

RN 212454-61-0 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-

 $\label{lem:pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[(3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)$

PAGE 1-C

$$-$$
C $-$ NH $-$ (CH₂)3 $-$ NMe₂

RN 212454-63-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212454-93-8 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 1-B

PAGE 2-A

RN 212454-94-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212454-98-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-\stackrel{\circ}{\mathbb{U}}_{-} \text{NH-} \text{CH}_2 - \text{CH}_2 - \stackrel{\circ}{\mathbb{U}}_{-} \text{NH-} \stackrel{\circ}{\mathbb{U}_{-}} \text{NH-} \stackrel{\circ}{\mathbb{U}}_{-} \text{NH-}$$

PAGE 1-C

$$\begin{array}{c} --\text{CH}_2-\text{CH}_2-\text{C}-\text{NH}-\text{(CH}_2)}{}_3-\text{NMe}_2 \\ \downarrow \\ 0 \end{array}$$

PAGE 2-A

RN 212455-00-0 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[4-[[[3-hydroxy-4-[[4-[[4-[[[3-hydroxy-4-[[[4-[[[4-[[4-[[4-[[4-[[4-[[4-[[4-[1]]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl

PAGE 1-A

PAGE 2-A

$$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array} \end{array} \end{array} \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}$$

RN 212455-01-1 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 212455-02-2 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

RN 212455-05-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[3-hydroxy-4-[[[4-[[[3-hydroxy-4-[[[4-[[[3-hydroxy-4-[[[4-[[[3-hydroxy-4-[[[4-[[[3-hydroxy-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]

PAGE 1-A

PAGE 4-A

RN 212455-06-6 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{$$

PAGE 1-C

PAGE 2-A

— (CH2) 3 — NMe2

RN 212455-07-7 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-4-[[3-hydroxy-4-[[3-hydroxy-4-[[4-[[4-[[4-[[4-[[4-[[3-hydroxy-4-[4-[[4-[[3-hydroxy-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-

RN 212455-08-8 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{\circ}{U}-NH-\overset{$$

PAGE 1-C

__ (CH₂)3_NMe₂

RN 212455-09-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c} \stackrel{\text{OH}}{\longrightarrow} \stackrel{\text{O}}{\longleftarrow} \text{NH-CH}_2 - \text{CH}_2 - \stackrel{\text{C}}{\longleftarrow} \text{NH-CH}_2 \\ \text{Me} \end{array}$$

PAGE 1-C

PAGE 2-A

RN 212455-12-4 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212455-13-5 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-

 $\label{eq:carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-butanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-$\beta-alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)$

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\overset{\mathsf{NH}}{\mathsf{NH}}-\overset{\mathsf{NH$$

PAGE 1-C

__ (CH2)3_NMe2

PAGE 2-A

RN 212455-14-6 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

RN 212455-15-7 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

__ (CH2)3_NMe2

PAGE 2-A

RN 212455-23-7 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[[4-[[4-[[[3-hydroxy-4-[[[3-hydroxy-4-[[[4-[[4-[[4-[[4-[[4-[[3-hydroxy-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 4-A

RN 212455-24-8 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212455-25-9 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[[3-hydroxy-4-[[4-[[[4-[[[4-[[[4-[[[3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

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RN 212455-27-1 HCAPLUS

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RN 212455-28-2 HCAPLUS

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{Me}}{\mathsf{C}}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\mathsf{C}-\mathsf{N$$

PAGE 1-C

__ (CH₂)3_NMe₂

PAGE 2-A

RN 212455-33-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

Me NH C (CH2) 3 - NH C NH OH NH CH2 CH2

RN 212455-34-0 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212455-35-1 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 212455-37-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

Me____

PAGE 2-B

PAGE 1-A

PAGE 2-A

RN 212455-38-4 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$\begin{array}{c} \stackrel{\text{OH}}{\longrightarrow} \stackrel{\text{O}}{\longleftarrow} \text{NH-CH}_2 - \text{CH}_2 - \stackrel{\text{C}}{\longleftarrow} \text{NH-CH}_2 \\ \text{Me} \end{array}$$

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212455-39-5 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212455-42-0 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[4-[[5-[[5-[[[5-[[[3-[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[4-[[3-[(3-hydroxy-1-methyl-1H-pyrrol-2-

yl)carbonyl]amino]-1-oxopropyl]amino]-1-methyl-1H-imidazol-2-yl]carbonyl]amino]-1-methyl- (CA INDEX NAME)

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RN 212455-60-2 HCAPLUS
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CN 1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[3-[[4-[[4-[[3-hydroxy-4-[[4-[[3-hydroxy-1-methyl-1H-pyrrol-2-yl)carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-oxopropyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-A

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RN 212455-61-3 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\overset{\circ}{\mathbb{U}}_{\mathrm{NH-CH}_{2}-\mathrm{CH}_{2}}\overset{\circ}{\mathrm{Ch}_{2}-\mathrm{Ch}_{2}}\overset{\circ}{\mathrm{U}}_{\mathrm{NH-Me}}\overset{\circ}{\mathrm{NH-Me}}\overset{\circ}{\mathrm{U}}_{\mathrm{NH-Me}}\overset{\circ}{\mathrm{NH$$

PAGE 1-C

$$-CH_2-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212455-62-4 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

Me_N_NH_C_CH2_CH2_NH_C_Me_NH_C_NH_C

RN 212455-67-9 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-3-hydroxy-1-methylprolyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

RN 212482-74-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212482-75-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{NH}$$

PAGE 1-C

PAGE 2-A

PAGE 3-A

$$\mathbb{N} \longrightarrow \mathbb{N} \longrightarrow \mathbb{N} \in$$

212482-76-3 HCAPLUS

RN

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-(QCI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

PAGE 2-B

RN 212482-78-5 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-CH_2-\overset$$

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212482-79-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-CH_2-\overset$$

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212482-80-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$\underbrace{ \begin{array}{c} \overset{\circ}{\text{H}} & \overset{\circ}{\text{C}} \\ \\ \overset{\circ}{\text{NH}} & \overset{\circ}{\text{CH}_2} - \overset{\circ}{\text{CH}_2} - \overset{\circ}{\text{CH}_2} - \overset{\circ}{\text{CH}_2} - \overset{\circ}{\text{NH}_2} - \overset{\circ}{\text{NH$$

PAGE 2-A

RN 212482-82-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

RN 212482-83-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

Me NH

PAGE 2-A

N_Me

PAGE 3-A

RN 212482-84-3 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

Me
ONH—CH2—CH2—CH2—CNH—N
Me
NH
Me
Me

PAGE 1-B

PAGE 1-C

PAGE 1-D

RN 212482-92-3 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212482-93-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

Me NH C (CH2) 3 - NH C NH NH NH NH NH C CH2 NH Me NH C CH2

RN 212482-94-5 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

PAGE 2-B

RN 212482-96-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212482-97-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c}
\text{Me} \\
\text{NH} \\
\text{C-NH-CH}_2 - \text{CH}_2 - \text{CH}_2
\end{array}$$

PAGE 2-A

RN 212482-98-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 1-D

___NMe 2

RN 212483-00-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212483-01-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

Me C_NH_CH2_CH2_C_NH_(CH2)3_NMe2

RN 212483-16-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-(9CI) (CA INDEX NAME)

PAGE 1-A

Me
CNH—CH2—CH2—CH2—CNH—N
Me
CNH—CH2—CH2—CNH—N
Me

PAGE 1-C

-NH-CH2-CH2-CH2-C-NH-N-Me

NH-CH2-CH2-CH2-C-NH-N-Me

NH-CH2-CH2-CH2-C-NH-N-Me

NH-CH2-CH2-CH2-C-NH-N-Me

NH-CH2-CH2-CH2-C-NH-N-Me

PAGE 1-D

PAGE 1-B

RN 212483-25-5 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212483-26-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 2-A

RN 212483-27-7 HCAPLUS

CN β -Alaninamide, 2,3,4,5-tetradehydro-1-methylprolyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

RN 212483-28-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

$$O = \bigcup_{NH}^{CH_2} NH - \bigcup_{Me}^{O} NH - \bigcup_{NH}^{O} NH - \bigcup_{NH}^{O} (CH_2)_3 - NH - \bigcup_{NH}^{O} (CH_2)_$$

Me___

PAGE 3-A

Me___

PAGE 3-B

RN 212483-29-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\$$

PAGE 2-A

RN 212483-31-3 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{V}-N$$

PAGE 1-D

__ (CH₂)3_NMe₂

RN 212483-32-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\mathrm{NH} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{N}}}_{\mathrm{Me}} \mathrm{NH} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{N}}}_{\mathrm{NH}} \mathrm{NH} \underbrace{\hspace{1cm} \overset{\circ}{\mathbb{N}}}_{\mathrm{NH}} \mathrm{NH} - \mathrm{CH}_{2} - \mathrm{CH}_{2} - \underbrace{\overset{\circ}{\mathbb{N}}}_{\mathrm{NH}} \mathrm{NH}$$

PAGE 1-C

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PAGE 2-A

RN 212483-33-5 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Me} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 212483-34-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 212483-35-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

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PAGE 1-D

__NH_ (CH2)3_NMe2

RN 212483-41-5 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212483-42-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 2-A

O

Me

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-B

PAGE 2-A

NH

NH

C-NH-CH2-CH2-C-NH-(CH2)3-NMe2

RN 212483-44-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

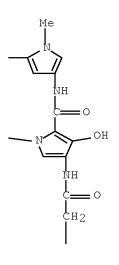
PAGE 1-A

PAGE 2-A

$$0 = \bigcup_{N=1}^{CH_2} NH - \bigcup_{M=1}^{OH} NH - \bigcup_{M=1}^{OH} NH - \bigcup_{M=1}^{OH} (CH_2)_3 - NH - \bigcup_{M=1}^{OH}$$

Me___

PAGE 2-B



PAGE 3-A

Ме____

PAGE 4-B

N Me

RN 212483-45-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-

 $\label{eq:cambonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)$

PAGE 2-A

RN 212483-46-0 HCAPLUS

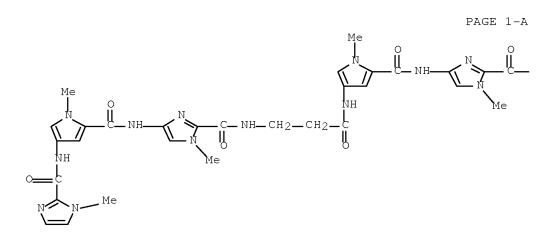
CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 2-A

RN 212483-47-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)



PAGE 1-B

PAGE 1-C

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{Me}}{\mathsf{CH}_2}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}_2}-\mathsf{CH}_2-\mathsf{C}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}_2}-\mathsf{CH}_2-\overset{\mathsf{CH}}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{NH}}{\mathsf{CH}_2}-\overset{\mathsf{CH}}{\mathsf{CH}_2}-\overset{\mathsf{CH}}{\mathsf{C}}-\mathsf{NH}-\overset{\mathsf{CH}}{\mathsf{CH}_2}-\overset{\mathsf{CH}}{\mathsf{C}}-\overset{\mathsf{NH}}{\mathsf{CH}_2}-\overset{\mathsf{CH}}{\mathsf{C}}-\overset{\mathsf{NH}}{\mathsf{C}}-\overset{\mathsf{$$

PAGE 1-D

__ (CH₂)₃_NMe₂

RN 212483-48-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\$$

PAGE 2-A

RN 212483-52-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 2-A

RN 212483-53-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

PAGE 1-D

__NH_ (CH2)3_NMe2

RN 212483-54-0 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212483-62-0 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212483-64-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212483-67-5 HCAPLUS

RN 212483-69-7 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[5-[[[4-[[2-[[[5-[[[5-[[[3-[[2-[[[5-[[[3-[[3-([3-([3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[[1-methyl-4-[[3-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1-oxopropyl]amino]-1H-imidazol-2-yl]carbonyl]amino]- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

$$O = \bigcup_{N=1}^{CH_2} NH - \bigcup_{M=1}^{O} NH - \bigcup_{M=1}^{O} NH - \bigcup_{M=1}^{O} NH - \bigcup_{M=1}^{O} (CH_2)_3 - NH - \bigcup_{M=1}^{O} NH - \bigcup_{$$

Me___

PAGE 2-B

 $\label{eq:carbonyl-1} 1-\text{methyl-1H-imidazole-}2-\text{carbonyl-}4-\text{amino-}1-\text{methyl-1H-imidazole-}2-\text{carbonyl-}4-\text{amino-}1-\text{methyl-1H-pyrrole-}2-\text{carbonyl-}4-\text{amino-}3-\text{hydroxy-}1-\text{methyl-1H-pyrrole-}2-\text{carbonyl-}4-\text{amino-}1-\text{methyl-1H-pyrrole-}2-\text{carbonyl-}4-\text{amino-}3-\text{hydroxy-}1-\text{methyl-1H-pyrrole-}2-\text{carbonyl-}4-\text{amino-}1-\text{methyl-1H-pyrrole-}2-\text{carbonyl-}4-\text{amino-}1-\text{methyl-1H-imidazole-}2-\text{carbonyl-}4-\text{amino-}1-\text{methyl-1H-pyrrole-}2-\text{carbonyl-}N-[3-(\text{dimethylamino})\text{propyl]-}(9\text{CI})\\ \text{(CA INDEX NAME)}$

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RN 212483-72-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212483-74-4 HCAPLUS

RN 212483-77-7 HCAPLUS

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RN 212483-80-2 HCAPLUS

RN 212483-82-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-NH \longrightarrow \bigcup_{N=0}^{\infty} \bigcup_{N=0}^{\infty} NH \longrightarrow \bigcup_{N=0}$$

PAGE 2-A

PAGE 1-B

RN 212484-02-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

 $-CH_2-CH_2-NH-\overset{\circ}{C} \longrightarrow NH-\overset{\circ}{C} \longrightarrow NH-\overset{$

PAGE 1-C

(CH2)3-NH-C-NH-C-N-NH-C-NH-C-N-NH-C-N-NH-C-N-NH-C-N-NH-C-N-NH-C-N-NH-C-N-NH-C-N-NH-C-N-NH-

PAGE 1-D

$$-NH = \underbrace{0}_{\text{CH}_2-\text{CH}_2-\text{NH}} = \underbrace{0}_{\text{N}_2-\text{NH}} \underbrace{0}_{\text{N}_2-\text{NH}} = \underbrace{0}_{\text{N}_2-\text{N}} = \underbrace{0}_{\text{N}_2-\text{N$$

RN 212484-03-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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PAGE 2-B

PAGE 4-B

$$N \longrightarrow M \in \mathbb{R}^{N}$$

RN 212484-13-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-

 $\label{eq:carbonyl-beta-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)$

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N

N

N

N

N

Me

C_NH_CH2_CH2_C_NH_(CH2)3_NMe2

RN 212484-15-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212484-16-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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212484-18-9 212484-20-3 212484-21-4
212484-22-5 212484-23-6 212484-24-7
212484-25-8 212484-26-9 212484-27-0
212484-34-9 212484-35-0 212484-36-1
212484-37-2 212484-38-3 212484-41-8
212484-42-9 212484-43-0 212484-44-1
212484-45-2 212484-46-3 212484-51-0
212484-52-1 212484-53-2 212484-55-4
212484-56-5 212484-57-6 212484-58-7
212484-59-8 212484-60-1 212484-61-2
212484-67-8 212484-70-3 212484-90-7
212485-15-9 212485-17-1 212485-20-6
212488-14-7 212488-16-9 212488-18-1
212488-22-7 212488-24-9 212488-26-1
212488-30-7 212488-32-9 212488-34-1
212488-36-3 212488-78-3 212488-81-8
212488-87-4 212488-90-9 212488-93-2
212489-05-9 212489-08-2 212489-53-7
212495-49-3 212496-53-2 212496-59-8
212496-68-9 212496-73-6 212496-78-1
212496-88-3 212496-93-0 212496-98-5
212497-03-5 212497-28-4 212497-82-0
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212497-86-4 212497-94-4 212497-97-7 212497-99-9 212498-04-9 212498-06-1 212498-42-5

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(design and use of specific polyamide DNA-binding ligands for modulation of gene expression)

RN 212484-18-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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$$\mathbb{N}^{\mathbb{N}} \stackrel{\mathsf{M}}{=} \mathbb{N}$$

RN

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-

²¹²⁴⁸⁴⁻²⁰⁻³ HCAPLUS

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$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

NH
C=0
CH2
CH2

PAGE 3-A

RN 212484-21-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212484-22-5 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$\begin{array}{c} \overset{\text{OH}}{\longrightarrow} \overset{\text{O}}{\longleftarrow} \overset{\text{O}}{\longrightarrow} \overset{$$

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Me NH C O

RN 212484-23-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 3-A

$$Me \xrightarrow{\text{C-NH-CH}_2-\text{CH}_2-\text{C-NH-(CH}_2)} N \xrightarrow{\text{Me}} N \xrightarrow{\text{Me}} N \xrightarrow{\text{Me}} N \xrightarrow{\text{Me}} N \xrightarrow{\text{Me}} N \xrightarrow{\text{Ne}} N \xrightarrow{\text{Ne}}$$

RN 212484-25-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212484-26-9 HCAPLUS

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RN 212484-27-0 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212484-34-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-

 $\label{eq:carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)$

PAGE 3-A

N

N

C-NH-CH2-CH2-C-NH-(CH2)3-NMe2

RN 212484-35-0 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212484-36-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212484-37-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212484-38-3 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-C

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PAGE 3-A

$$\mathbb{N} \longrightarrow \mathbb{N} \longrightarrow \mathbb{N} \in$$

RN 212484-41-8 HCAPLUS
CN 1H-Imidazole-2-carboxamide, N-[4-[[5-[[5-[[5-[[5-[[5-[[5-[[5-[[5-[[3-[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]-1-methyl-4-[[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[1-methyl-4

PAGE 1-B

$$\underbrace{ \begin{array}{c} \overset{\circ}{\text{H}} & \overset{\circ}{\text{U}} & \overset{\circ}{\text{NH}} & \overset{\circ}{\text{C}} & \overset{\circ}{\text{NH}} & \overset{\circ}{\text{C}} & \overset{\circ}{\text{NH}} & \overset{\circ}{\text{C}} & \overset{\circ}{\text{NH}} & \overset{\circ}{\text{NH}$$

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PAGE 2-A

RN 212484-42-9 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[5-[[3-[[3-[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[[1-methyl-4-[1-methyl-4-[1]]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]- (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 2-A

PAGE 3-A

CN 1H-Imidazole-2-carboxamide, N-[5-[[[4-[[5-[[[5-[[[5-[[[3-[[3-[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[[1-methyl-4-[[3-[[1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]- (CA INDEX NAME)

PAGE 1-C

MH
CH2
CH2
NH
CM
N

PAGE 3-A

PAGE 2-A

RN 212484-44-1 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[4-[5-[[5-[[5-[[5-[[3-[[2-[[5-[[3-[[3-[dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[[1-methyl-4-[[3-[[1-methyl-4-[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]- (CA INDEX NAME)

PAGE 1-B

$$\begin{array}{c} \stackrel{\text{OH}}{\longrightarrow} \stackrel{\text{O}}{\longleftarrow} \text{NH-CH}_2 - \text{CH}_2 - \stackrel{\text{C}}{\longleftarrow} \text{NH-CH}_2 \\ \text{Me} \end{array}$$

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212484-45-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 2-A

RN 212484-46-3 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

OH

OH

OH

ON

NH

CH2

CH2

OH

NH

NH

NH

CH2

CH2

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

Me NH

RN 212484-51-0 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

RN 212484-52-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 3-A

RN 212484-53-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

RN 212484-55-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-C

PAGE 3-C \sim N \sim Me

PAGE 1-B

NH

CH2

CH2

NH

CH2

NH

CH2

NH

CH2

O

NH

CH2

O

PAGE 3-A

PAGE 2-A

N Me

212484-57-6 HCAPLUS

RN

yl]carbonyl]amino]-1-oxopropyl]amino]- (CA INDEX NAME)

[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-

PAGE 1-B

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

NH
C=O
CH2
CH2
NH
C=O
NH
NH
C=O

PAGE 3-A

PAGE 2-A

RN 212484-58-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 212484-59-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 2-A

PAGE 3-A

RN

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 3-A

RN 212484-61-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

RN 212484-67-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

$$-\stackrel{\circ}{\mathbb{L}}_{-\mathrm{NH-CH}_2-\mathrm{CH}_2} \stackrel{\circ}{\mathbb{L}}_{-\mathrm{NH-CH}_2-\mathrm{CH}_2-\mathrm{CH}_2} \stackrel{\circ}{\mathbb{L}}_{-\mathrm{NH-CH}_2-\mathrm{CH}_2-\mathrm$$

PAGE 1-D

__NH_ (CH2)3_NMe2

RN 212484-70-3 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-

pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-NH \longrightarrow \bigcup_{N=0}^{\infty} U_{-NH} - CH_2 - CH_2 - U_{-NH} \longrightarrow \bigcup_{N=0}^{\infty} U_{-NH} U_$$

NH
C=0
CH2
CH2
NH
C=0

PAGE 2-A

N Me

PAGE 3-A

RN 212484-90-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

RN 212485-15-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212485-17-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

 $-CH_2-CH_2$ $\stackrel{\circ}{U}_{-}$ NH $\stackrel{\circ}{U}_{-}$ NH

PAGE 1-C

PAGE 1-B

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-A

PAGE 3-A

RN 212485-20-6 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\overset{\mathsf{NH}}{\mathsf{C}}-\mathsf{NH}-\mathsf{CH}_2-\overset{\mathsf{NH}}{\mathsf{CH}}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH}-\mathsf{CH}-\mathsf{NH$$

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

PAGE 2-ANH

PAGE 3-A

RN 212488-14-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-A

$$-\mathsf{CH}_2-\mathsf{CH}_2-\overset{\circ}{\mathsf{C}}-\mathsf{NH}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\mathsf{CH}_2-\overset{\circ}{\mathsf{NH}}-\overset{\mathsf{NH}}-\overset{\mathsf{N}}-\overset{\mathsf{N}}-\overset{\mathsf{N}}-\overset{\mathsf{N}}-\overset{\mathsf{N}}-\overset{\mathsf{N}}-\overset{\mathsf{N}}-\overset{\mathsf{N}}-\overset$$

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

СH₂

PAGE 2-A

PAGE 3-A

$$N \longrightarrow M \in$$

RN 212488-16-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{NH}-\mathsf{N$$

PAGE 2-A

PAGE 3-A

RN 212488-18-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

RN 212488-22-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{U}-N$$

PAGE 1-C

$$-$$
CH₂-C-NH-(CH₂)₃-NMe₂

PAGE 3-A

$$N \longrightarrow N \longrightarrow M \in M$$

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 2-A

PAGE 3-A

RN 212488-26-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-(GA INDEX NAME)

PAGE 1-B

$$\begin{array}{c} \overset{\circ}{\longrightarrow} \overset{\circ}{\longrightarrow$$

PAGE 2-A

RN 212488-30-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}-NH-\overset{\circ}{U}-N$$

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PAGE 3-A

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$-CH_2-C_NH-(CH_2)_3-NMe_2$$

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RN 212488-34-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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PAGE 1-D

RN 212488-36-3 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B $-CH_2-CH_2- \stackrel{\circ}{U}_{-} NH - \stackrel{\circ}{U}_{-} NH - \stackrel{\circ}{U}_{-} NH - CH_2 - \frac{1}{U}_{-} NH - \frac{1}{U}_{-}$

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

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RN 212488-78-3 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212488-81-8 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212488-87-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212488-90-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212488-93-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212489-05-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212489-08-2 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212489-53-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

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RN 212495-49-3 HCAPLUS
CN 1H-Imidazole-2-carboxamide, N-[2-[[[5-[[[3-[[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-4-hydroxy-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[4-[[4-[[4-[[4-[[4-[[4-[[4-[[3-hydroxy-1-methyl-4-[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1+pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-

PAGE 1-A

oxobutyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 2-A

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Me___

NH Me
NH OH
NH
NH
NH

PAGE 3-B

N Me

PAGE 4-B

RN 212496-53-2 HCAPLUS
CN 1H-Imidazole-2-carboxamide, N-[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[4-[[4-[[4-[[3-hydroxy-4-[[3-hydroxy-4-[[3-[[4-[[3-hydroxy-1-methyl-4-[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1+methyl-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyr

RN 212496-59-8 HCAPLUS

сн2

CN

1H-Imidazole-2-carboxamide, N-[5-[[5-[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[[4-[[[3-hydroxy-4-[[4-[[[3-hydroxy-4-[[3-[[[4-[[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

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CH2

RN 212496-68-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212496-73-6 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[5-[[[3-[[3-(dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-

pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[3-[[3-hydroxy-4-[[4-[[4-[[4-[[3-hydroxy-4-[[4-[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-me

PAGE 2-A

$$Me \xrightarrow{N \longrightarrow N} Me$$

$$C \longrightarrow NH \longrightarrow CH_2 \longrightarrow CH$$

RN 212496-78-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2-CH_2-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-\overset{\circ}{U}_{-}NH-CH_2-\overset{\circ}{U}_{-}NH-\overset{U$$

PAGE 1-C

$$-CH_2-C-NH-(CH_2)_3-NMe_2$$

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N M

212496-88-3 HCAPLUS

RN

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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$$N \longrightarrow M \in$$

RN 212496-93-0 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-(QCI) (CA INDEX NAME)

PAGE 2-A

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

212496-98-5 HCAPLUS

RN

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 212497-03-5 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[2-[[[4-[[5-[[[5-[[[3-[[5-[[[5-[[[5-[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[3-[[4-[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxopropyl]amino]-1-methyl- (CA INDEX NAME)

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PAGE 1-C

Me____

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RN 212497-28-4 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[2-[[[3-[[2-[[[5-[[[5-[[[3-[[3-([dimethylamino)propyl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]amino]-3-oxopropyl]amino]carbonyl]-1-methyl-1H-imidazol-4-yl]-4-[[4-[[[4-[[3-[[4-[[3-hydroxy-1-methyl-4-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]-1-methyl- (CA INDEX NAME)

PAGE 1-A

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PAGE 2-A

NH

CH2

CH2

CH2

NH

NH

OH

NH

NH

OH

RN 212497-86-4 HCAPLUS

$$Me \xrightarrow{\text{C-NH-CH}_2-\text{CH}_2-\text{C-NH-(CH}_2)} Me$$

RN 212497-94-4 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212497-97-7 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

$$\underset{\mathsf{Me}}{\overset{\mathsf{N}}{ \longrightarrow} \overset{\mathsf{N}}{ \longrightarrow} \overset{\mathsf{N}}{ \longrightarrow} \overset{\mathsf{N}}{ \longrightarrow} \overset{\mathsf{Me}}{ \longrightarrow} \overset{\mathsf{N}}{ \longrightarrow} \overset{\mathsf{N$$

RN 212497-99-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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RN 212498-04-9 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

Me NH (CH2)3 C NH NH Me

NH Me NH Me

NH Me

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RN 212498-06-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl-4-aminobutanoyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

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NH

CH2

CH2

CH2

NH

NH

OH

NH

OH

NH

OH

RN 212498-42-5 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-3-hydroxy-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]-(9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:568743 HCAPLUS Full-text DOCUMENT NUMBER: 129:184244

ORIGINAL REFERENCE NO.: 129:37273a,37276a

Inhibition of viral or cancer gene transcription by TITLE:

polyamide DNA-binding ligands

INVENTOR(S): Gottesfeld, Joel M.; Dervan, Peter B.; Mosier, Donald

E.; Baird, Eldon E.

PATENT ASSIGNEE(S): California Institute of Technology, USA; The Scripps

Research Institute

SOURCE: PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PA	PATENT NO.						KIND DATE			APPL	ICAT	ION :	NO.		DATE				
WC	O 9835702					A1 19980820													
	W:	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,		
										GW,									
										LU,									
		NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,		
		UA,	UG,	US,	UΖ,	VN,	YU,	ZW											
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										MG,									
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		,	YU,																
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	7499				B2		2002			1	000	0000	4.0			0000	011		
EP	9647																211 <-		
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	6660				B1		2003			US 2							 425 <-		
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										US 1	997-	3839	4P		P 1	9970	214 <-		
										US 1	997-	8530	22		A2 1	9970	421 <		
										WO 1	997-	US12	722		A2 1	9970	721 <		
										US 1	997-	8535	22		A 1	9970	508 <		
										US 1	997-	8535	25		A 1	9970	508 <		
										US 1	997-	5604	8P		P 1	9970	902 <		
										US 1	997-	5833	8P		P 1	9970	910 <		
										WO 1	998-	US24	44		W 1	9980	211 <		
ED En	itered	STN	: 0	7 Se	p 199	98													

- AB The invention provides polyamides suitable for modulating cellular or viral gene expression by binding to an identified target DNA sequence adjacent to the binding site of a minor groove transcription factor protein. The polyamides of the present invention are useful for the treatment of a human infected with a virus such as HIV-1. The polyamides of the present invention are also useful for the treatment of conditions, such as cancers, that result from the expression or over-expression of cellular genes, particularly oncogenes.
- IT 211860-89-8 211860-90-1

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(inhibition of viral or cancer gene transcription by polyamide DNA-binding ligands)

- RN 211860-89-8 HCAPLUS
- CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 211860-90-1 HCAPLUS

CN β -Alaninamide, 1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl- β -alanyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-4-amino-1-methyl-1H-imidazole-2-carbonyl-4-amino-1-methyl-1H-pyrrole-2-carbonyl-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 2-A

PAGE 3-A

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1996:386564 HCAPLUS $\underline{\text{Full-text}}$

DOCUMENT NUMBER: 125:108335 ORIGINAL REFERENCE NO.: 125:20155a

TITLE: Extended hairpin polyamide motif for sequence-specific

recognition in the minor groove of DNA

AUTHOR(S): Trauger, John W.; Baird, Eldon E.; Dervan, Peter B.

CORPORATE SOURCE: Arnold and Mabel Beckman Lab. Chem. Synthesis,

California Inst. Technol., Pasadena, CA, 91125, USA

SOURCE: Chemistry & Biology (1996), 3(5), 369-377

CODEN: CBOLE2; ISSN: 1074-5521

PUBLISHER: Current Biology

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 04 Jul 1996

AB Three-ring polyamides containing N-methylimidazole and N-methylpyrrole amino acids bind sequence-specifically to double-helical DNA by forming side-by-side complexes in the minor groove. Simple pairing rules relate the amino-acid sequence of a pyrrole-imidazole polyamide to its expected DNA target site, and polyamides that target a wide variety of DNA sequences have been synthesized. We have shown previously that two three-ring subunits could be linked together by an aliphatic amino acid, increasing the binding affinity of the polyamide and, in some cases, increasing the length of the target sequence. We set out to determine whether different types of linkers could be used in a single mol. to generate a nine-ring polyamide mol. that would bind to specific DNA sequences. A nine-ring pyrrole-imidazole polyamide, containing two different amino acid linkers, β -alanine and γ -aminobutyric acid, has been synthesized and shown to specifically bind a designated nine-base-pair target site at subnanomolar concentration in a novel extended hairpin conformation. amino acids γ -aminobutyric acid and β -alanine optimally link three-ring pyrrole-imidazole subunits in 'hairpin' and 'extended' conformations, resp. Both aliphatic amino acids can be combined to generate a nine-ring polyamide that specifically recognizes a nine-base-pair target site with very high affinity.

IT 179259-18-8P 179259-19-9P

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(extended hairpin polyamide motif for sequence-specific recognition in

the minor groove of DNA)

179259-18-8 HCAPLUS

RN

CN

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PAGE 1-B

PAGE 2-A

RN 179259-19-9 HCAPLUS

CN 1H-Imidazole-2-carboxamide, N-[5-[[[5-[[[3-[[2-[[[5-[[[5-[[[5-[[[2-[[3-[(3-aminopropyl)methylamino]propyl]amino]-2-oxoethyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-imidazol-2-yl)carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1H-pyrrol-2-yl]carbonyl]amino]-1-oxobutyl]amino]- (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

L29 ANSWER 13 OF 16 WPIX COPYRIGHT 2009 THOMSON REUTERS on STN

DUPLICATE 1

ACCESSION NUMBER: 2009-J226

TITLE:

2009-J22672 [35] WPIX

New pyrrolobenzodiazepine derivative useful for in

medical treatment or for treating a disease or condition

ameliorated by the down-regulation of the androgen

receptor e.g. prostate cancer

DERWENT CLASS: B02

INVENTOR: HOWARD P; MASTERSON L; ROFFEY J

PATENT ASSIGNEE: (SPIR-N) SPIROGEN LTD

COUNTRY COUNT: 122

PATENT INFO ABBR.:

APPLICATION DETAILS:

PATENT NO KIND APPLICATION DATE WO 2009060208 A1 WO 2008-GB3757 20081107 PRIORITY APPLN. INFO: GB 2007-22088 20071109 WO 2009060208 A1 UPAB: 20090604 NOVELTY - Pyrrolobenzodiazepine (PBD) derivative is new. DETAILED DESCRIPTION - Pyrrolobenzodiazepine (PBD) derivative of formula (I) is new. a'=optional presence of a double bond; R2=-H, -OH, =O, =CH2, -CN, -R, OR, halo, =CH-R, O-SO2-R, CO2R or COR; R7=H, R, OH, OR, SH, SR, NH2, NHR, NRR', nitro, Me3Sn or halo; R,R'=1-7C alkyl, 3-20C heterocyclyl and 5-20C aryl (all optionally substituted); R10, R11=H or Y1Ry; or R10+R11=double bond; Y1=0, S or NH; Ry=H or 1-7C alkyl; or H and SOxM1; x=2 or 3; M1=monovalent cation; X=5-6C heteroarylene; An INDEPENDENT CLAIM is included for an precursor pyrrolobenzodiazepine compound of formula (II). R10a=nitrogen protecting group; R11a=OH or OProt'; Pro'=hydroxy protecting group. ACTIVITY - Cytostatic. MECHANISM OF ACTION - Androgen receptor (AR) blocker; AR mRNA transcription inhibitor. Efficacy of test compound for selective inhibition of AR mRNA transcription was carried out using RNA extraction and quantitation and cDNA generation assay in LNCaP-FGC prostate carcinoma cells, seeded into six-well plates in which the test compound was added at 1 mu M and incubated for 24 hours. The results showed that the expression on AR was only 0.0008fold. USE - In medical treatment; in the manufacture of a medicament for treating a disease or condition ameliorated by the down-regulation of the Androgen Receptor selected from prostate cancer (all claimed). AN.S DCR-2045657 SDCN RB2E20 * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT * AN.S DCR-2045669 SDCN RB2E32

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

'HITSTR' IS NOT A VALID FORMAT
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or the STNGUIDE file for information on formats available in individual files.

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L29 ANSWER 14 OF 16 MARPAT COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 149:549619 MARPAT Full-text

TITLE: DNA-binding polyamides, targeting steroid response

elements and disrupting gene regulation, and therapeutic uses for treating human diseases

INVENTOR(S): Dervan, Peter B.; Nickols, Nicholas G. PATENT ASSIGNEE(S): California Institute of Technology, USA

SOURCE: PCT Int. Appl., 88pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO. KIND DATE
                                       APPLICATION NO. DATE
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    WO 2008133877
                    A1 20081106 WO 2008-US5184 20080422
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            CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
            FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
            KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
            ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
            PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
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        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
            IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
            TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
            TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
            AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    US 20090042965
                    A1 20090212
                                        US 2008-148943 20080422
                                        US 2007-926080P 20070423
PRIORITY APPLN. INFO.:
```

The present invention relates to polyamide compns. (I; X = CH, N, COH; each pyrrole may be replaced with β -alanine; R2 = H, C1-10-alkyl, C1-10-alkenyl, C1-10-alkynyl, etc.; R3 may be linked to R4 and R1 may be linked to R5 by NHCH2CH(R7)CH(R8)CO, NH CH(R9)CO, NHCH2CH2CO; (R1-4 are further specified); R7-9 = H, NH2, NHCOCH3, etc.; p = 0, 1) capable of inhibiting gene regulation modulated by androgen, glucocorticoid and estrogen response elements in a cell. Polyamides of the invention are capable of entering a cell, binding to ARE, GRE and ERE in the genome, and inhibiting binding of other mols. to these elements. The invention also relates to methods to treat diseases related to ARE-, GRE- and ERE-mediated gene regulation.

MSTR 1A

G2

G1 = 836

G5 = CH G7 = NH

G42 = alkylene <containing 1 or more C> (opt. substd.)

Patent location: claim 1

Note: additional derivatization also claimed

Note: substitution is restricted

MSTR 18

G2 L₁

G1 = 914

G5 = CH G7 = NH

G8 = 79

7938-1940

G38 = 10-26 7-25 8-12



G42 = alkylene <containing 1 or more C> (opt. substd.)

Patent location: claim 1

Note: additional derivatization also claimed

Note: substitution is restricted

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 15 OF 16 MARPAT COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 139:276894 MARPAT Full-text

TITLE: Preparation of hairpin-type pyrrole-imidazole

polyamides as anticancer agents

INVENTOR(S): Sugiyama, Hiroshi; Bando, Toshikazu; Saito, Isao PATENT ASSIGNEE(S): Japan Science and Technology Corporation, Japan

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.					DATE			A	PPLI	CATI	ON N	DATE				
WO	2003		 12	 A	1	20030918			W	0 20	 03-J	 P242	2003				
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JP	, ,			, , , ,			,	JP 2002-63608					20020308				
JP	3898532			B2 2007			70328										
EP	1491534			A1		20041229			E	EP 2003-707192			2003	0303			
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US	2005	0176	647	Α	1	2005	20050811			S 20	04-5	0700	4	2004	0908		
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PRIORIT	RIORITY APPLN. INFO							JP 2002-63608					20020308				
									M	0 20	03-J	P242	3	2003	0303		

AB It is intended to provide a pyrrole-imidazole polyamide type functional mol. having enhanced abilities of alkylating DNA and recognizing a sequence, compared with the existing functional mols. of this type, for a specific base sequence occurring on DNA. Hairpin polyamides have an alkylation site via a vinyl linker at the end of a pyrrole-imidazole polyamide and are represented by general formula (I; R1 = a site for alkylation reaction; R2 = H, alkyl, acetamido; p, p1, q, m, n = an integer). Disclosed are drugs for inhibiting the expression of a specific gene and anticancer agents containing the above hairpin polyamide. For example, I (m = p = p1 = 1, n = 2, q = 3, R1 = q) selectively alkylated A of the GTCA sequence of DNA (pUC-I'). The compds. I were tested for inhibiting the proliferation of various cancer cells.

MSTR 1

$$\int_{765-69}^{62} \frac{6}{6} \frac{4}{6} \frac{6}{7} \frac{3}{5} \frac{1}{8} \frac{6}{1} \frac{1}{8} \frac{1}{7} \frac{1}{16} \frac{$$

G2 =
$$(1-10)$$
 CH2
G3 = $(1-5)$ 48-68 35-58

$$G4 = (1-5) 54-51 43-67$$

$$\bigcup_{54}^{\circ} \bigvee_{M_{\bullet}}^{NH} \bigvee_{M_{\bullet}}^{N} \bigcup_{M_{\bullet}}^{N} \bigcup_$$

$$G5 = (1-5) 50-51 5-69$$

Patent location: claim 2

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 16 OF 16 MARPAT COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 137:353318 MARPAT <u>Full-text</u>

TITLE: Preparation of distamycin- and netropsin-related halothienyl compounds as antibiotics and DNA binders

INVENTOR(S): Ge, Yigong; Taylor, Matthew J.; Baird, Eldon E.;

Burli, Roland W.; Kaizerman, Jacob A.; Martin, Amanda

E.; Cadman, Brie

PATENT ASSIGNEE(S): Genesoft, Inc., USA SOURCE: PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.				KIND DATE					A.	PPLI	CATI	N NC	٥.	DATE				
	WO	2002	 0881	 19	A1 20021107					WO 2002-US13199 20020424									
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
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			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NO,	NZ,	OM,	PH,	
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	
			UA,	UG,	US,	UΖ,	VN,	YU,	ZA,	ZM,	ZW								
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			BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG	
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	US 20060287247				Α	1	20061221			US 2006-446598 20060602									
	US	7498	405		В	2	2009	0303											
PRIOR	RITS	APP	LN.	INFO	.:					U	S 20	01-2	8645	4P	2001	0426			
										U	S 20	02-1	3288	7	2002	0424			
										M	0 20	02-U	S131	99	2002	0424			

AB Halogen-substituted thienyl compds. Th-D1-Ym-B5R20p [Th = halo-substituted 2-or 3-thienyl which may also have substituents OH, NO2, (un)substituted (hetero)alkyl; D1 = a bond, (un)substituted alkylene, S0, SO2; Y = NH-L-C(:B1), where L is an unsatd., 5-membered heterocycle (the heteroatom may be 0, S, or N), NHCH2(CHR15)n (n = 0 or 1, R15 = H, OH, NH2, or F), or a divalent moiety separating NH and C:B1 by 3 or 4 atoms and B1 = 0, S, or NH; m = 2-25; B5R20p = OB20 or NB202, where B20 = H, (un)substituted (hetero)alkyl] were prepared as potential nucleic acid (especially double stranded DNA) binders and as antibiotics. Thus, 3-chloro-2-thienoyl polyamide I was prepared via step-wise couplings and showed MIC \leq 4 $\mu g/mL$ for inhibition of S. Aureus, E. Faecalis, B. cereus, and S. Pneumoniae. A number of compds. of the invention were screened for their ability to bind to three DNA sites (binding data tabulated).

MSTR 1B

$$G3 = bond$$

 $G7 = (4-5) 10-2 12-4$

G8 = O
G9 =
$$14-10$$
 $17-12$ / $48-10$ $49-12$

$$G10 = N / 29$$

$$G11 = 31$$

Patent location: claim 1

Note: and pharmaceutically acceptable acid addition salts

Note: substitution is restricted

Note: additional G7 repeating units also claimed

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Search History

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L2	FILE	'REGISTRY' ENTERED AT 14:27:51 ON 06 JUL 2009 11 SEA SPE=ON ABB=ON PLU=ON (153348-04-0/BI OR 27072-45-3/BI OR 847860-70-2/BI OR 847891-90-1/BI OR 847891-91-2/BI OR 847895-32-3/BI OR 847895-33-4/BI OR 847895-34-5/BI OR 847895-35-6/BI OR 847895-36-7/BI OR 847895-37-8/BI)
L3 L4 L5 L6 L7 L8 L9 L10		'REGISTRY' ENTERED AT 14:36:08 ON 06 JUL 2009 STRUCTURE UPLOADED STRUCTURE UPLOADED SEA SSS SAM L4 SEA SSS FUL L4 STRUCTURE UPLOADED 19 SEA SSS SAM L7 SEA SPE=ON ABB=ON PLU=ON L8 AND L2 335 SEA SSS FUL L7 SEA SPE=ON ABB=ON PLU=ON L10 AND L2
L15 L16		3217 SEA SPE=ON ABB=ON PLU=ON SUGIYAMA H?/AU
L18 L19 L20 L21		'WPIX' ENTERED AT 14:46:08 ON 06 JUL 2009 1 SEA SSS SAM L7 6 SEA SSS FUL L7 4 SEA SPE=ON ABB=ON PLU=ON L19/DCR 3 SEA SPE=ON ABB=ON PLU=ON (L14 OR L15 OR L16) AND L20
L22 L23		'BEILSTEIN' ENTERED AT 14:47:05 ON 06 JUL 2009 0 SEA SPE=ON ABB=ON PLU=ON L10 0 SEA SPE=ON ABB=ON PLU=ON L10
L24 L25		'MARPAT' ENTERED AT 14:47:21 ON 06 JUL 2009 0 SEA SSS SAM L7 4 SEA SSS FUL L7
L26	FILE	'HCAPLUS, WPIX' ENTERED AT 14:51:55 ON 06 JUL 2009 3 DUP REM L17 L21 (1 DUPLICATE REMOVED)
L27	FILE	'HCAPLUS' ENTERED AT 14:54:04 ON 06 JUL 2009 12 SEA SPE=ON ABB=ON PLU=ON L13 NOT L17
L28	FILE	'WPIX' ENTERED AT 14:55:00 ON 06 JUL 2009 1 SEA SPE=ON ABB=ON PLU=ON L20 NOT L21
L29	FILE	'HCAPLUS, WPIX, MARPAT' ENTERED AT 14:55:43 ON 06 JUL 2009 16 DUP REM L27 L28 L25 (1 DUPLICATE REMOVED)